Province of
British Columbia

· MINISTRY OF EDUCATION ·

ANNUAL REPORT

For the period July 1, 1986 to June 30, 1987

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Ministry of Education

One Hundred and Sixteenth
Annual Report
July 1, 1986 to June 30, 1987

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Anthony J. Brummet
Minister of Education

To the Honourable Robert Rogers
Lieutenant Governor of the Province of British Columbia

MAY IT PLEASE YOUR HONOUR:

I have the honour and duty to present the One Hundred and Sixteenth Annual Report of the Ministry of Education, covering the period from July 1, 1986 to June 30, 1987.

Anthony J. Brummet
Minister of Education

A. L. (Sandy) Peel
Deputy Minister of Education

To the Honourable Anthony J. Brummet
Minister of Education, Province of British Columbia

Dear Mr. Minister:

I take pleasure in submitting, for your approval and transmittal to the Lieutenant Governor, the One Hundred and Sixteenth Annual Report of the Ministry of Education, covering the period from July 1, 1986, to June 30, 1987.

A. L. (Sandy) Peel
Deputy Minister of Education

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INTRODUCTION

OVERVIEW OF THE MINISTRY'S YEAR

The Ministry of Education was active in three main areas during 1986/87: public school education, independent school education and Ministry operations and support services.

In 1986/87, the 75 school districts in the provincial public school system contained 1,541 schools. One hundred eighty-one classified independent schools received government grants.

There were four provincial statutes that had a direct impact on the system, 22 other provincial statutes that had an indirect impact, and eight federal statutes that were of major significance. These statutes are set out in Table 1.1 on page 11.

On March 9, 1987, Mr. Barry Sullivan, Q.C. was appointed to conduct a Royal Commission on Education. It will make recommendations to the government on the long-term goals for education and curriculum. The Royal Commission is to submit its report in the spring of 1988.

On April 1, 1987 the Government initiated a major re-alignment of Deputy Ministers. Mr. A. L. (Sandy) Peel, previously Deputy Minister of Economic Development, assumed responsibility for the Ministry of Education. Mr. R. J. Carter assumed the position of Deputy Minister for the Ministry of Social Services and Housing.

On April 2, 1987, the *Teaching Profession Act* was introduced and on May 26 it received Royal Assent. This new Act provides for the creation of a College of Teachers in British Columbia and gives teachers the right of collective bargaining, either as a union or as an association.

THE MINISTRY'S MISSION

The mission and goals of the Ministry are constantly evaluated against current community needs. In January, 1985, the Ministry defined its goals in a working mission statement as follows:

> The British Columbia Ministry of Education ensures that the Province's education system gives students an opportunity to receive a quality education in a cost-effective manner. The Ministry will provide leadership and encouragement to the education agencies in British Columbia, set an overall direction for the education system and focus on the following areas of high level provincial concern:
>
> - program direction, development and implementation;
> - finance and facilities management;
> - student access, achievement and preparation for a role in society;
> - teaching/instructional performance; including public schools teacher preparation, certification and professional performance.

GOALS AND ATTRIBUTES OF THE EDUCATION SYSTEM

During 1986/87 the Ministry worked on the development of a framework to provide overall direction for the system's activities. A working model of this framework is now being refined through discussions with the various groups in the education system.

The first component in the framework is the "Image Statement of the Educated Person".

> *"The educated person is one who is a thinking individual, capable of making independent decisions based on analysis, reason and creative thinking. The individual is curious, capable of and interested in learning, capable of acquiring and imparting information, and able to draw from a broad knowledge base. The individual appreciates and is able to contribute to creative expression. The individual is self-motivated, has a sense of self-worth, pursues excellence, strives to be physically healthy and is able to achieve satisfaction through achievement. The individual has sound interpersonal skills, morals and values, and respects others who may be different. The educated person understands the rights and responsibilities of an individual within the family, community, nation and the world and is aware of Canada's cultural heritage. The individual is flexible and has skills necessary to function in and contribute to the world of work."*

This image of the educated person, prepared by the Curriculum Development Branch, attempts to describe the current and accepted beliefs about the role, or aim, of education as reflected in statements appearing in the ***Let's Talk About Schools*** discussion paper and other provincial documents. Clearly schools, parents and the community have a shared responsibility in the development of an educated society.

The four goals of education, as identified in ***Let's Talk About Schools***, have been adopted as the second component. These goals reflect the four broad learning areas on which our schools are expected to focus.

They are:

1. INTELLECTUAL DEVELOPMENT (prime responsibility of schools)

   To develop the ability of individuals to analyze critically, to reason and think independently, and to acquire basic learning skills and bodies of knowledge.

   To develop in individuals a lifelong appreciation of learning, a curiosity about the world around them, and a capacity for creative thought and expression.

2. VOCATIONAL DEVELOPMENT (shared responsibility)

   To assist in developing in individuals the means to realize their personal potential and to attain their occupational and career objectives.

   To assist in developing in individuals effective work habits, a

regard for the dignity of work, and the flexibility to deal with change and challenge in the workplace.

To assist in developing in individuals the sense of self-reliance, vision, and confidence vital to the creation of new opportunities for employment.

3. SOCIAL DEVELOPMENT (shared responsibility)
   To assist in developing in individuals an understanding concerning their relationship to the world in which they live, the role of the family in society, and their responsibilities and rights as citizens.

   To assist in developing in individuals a sense of social responsibility, a tolerance and respect for the ideas and beliefs of others, and an ability to live and work with other people.

   To assist in developing in individuals an appreciation for the fine arts and an awareness of the cultural heritage and values of Canadian society and broader world.
4. HUMAN DEVELOPMENT (shared responsibility)
   To assist in developing in individuals a sense of self-worth, individualism, personal initiative, self-discipline, the importance of the pursuit of excellence, and the satisfaction gained through achievement.

   To assist in developing in individuals an understanding of the importance of physical health, emotional well-being and the work and leisure activities which contribute to a good quality of life.

The third component is the result of an attempt to identify desirable qualities or attributes that a quality school system should be expected to exhibit. The attributes identified emanate from a pilot project designed to develop a set of key indicators of educational progress or achievement. This work has been done jointly by the Ministry and a number of school districts.

They are:

1. ACCESSIBILITY
   Universality is vital to the education provided to B.C. children. It is not enough to say that places are provided in programs throughout the Province. Real, rather than nominal, access means paying attention to the special needs of rural, gifted, handicapped, female and minority language students. Attention does not mean conceding standards but rather exploring new methods of delivery and communication in the interests of accessibility.

2. RELEVANCE
   Excellence alone is not enough if the material taught is not current enough to catch the imagination of students and to relate what they learn through schooling to the real world as it exists now.

3. PROFESSIONALISM
   Quality schooling depends on the quality of its teaching force. Continuing development of teaching skills will be even more impor-

tant in the years to come as teachers will have to adjust to changing student composition (e.g. more primary students) and interests (e.g. more secondary students taking mathematics and sciences). Moreover, the role model that teachers provide in the classroom and in all of the other activities they are involved in is absolutely essential.

4. MANAGEMENT AND ACCOUNTABILITY
The best and most well-meaning of organizations can lose their way and fail to achieve important standards if they become preoccupied with their own existence, do not monitor and assess achievements and do not account to the public. It is absolutely vital that schooling be monitored closely and the public informed on a regular basis of the strengths and weaknesses.

5. COST-EFFECTIVENESS
In a diverse society with an aging population, schooling is only one of many social responsibilities undertaken by government. Respecting the need to balance all social responsibilities and to make them all cost-effective, is a vital component of responsible government in an increasingly competitive world economy.

6. PUBLIC EXPECTATIONS
In a democratic society, it is not enough to provide the best possible schooling. That schooling must be provided so that it helps to define and responds to public expectations.

The structure of the middle section of this ***Annual Report*** is based upon this framework.

Table 1.1

Statutes related to the activities of the Ministry of Education, June 30, 1987

A. British Columbia Provincial Legislation Administered by Ministry, June 30, 1987*

Statute	Purpose
School Act	Governs the management of the B.C. public school system including powers and duties of school boards, health, pupil attendance, teacher appointments, salary bargaining, curriculum, capital finance and learning assessment.
Education (Interim) Finance Act	Governs the operational or non-capital financing of the B.C. public school system.
Teaching Profession Act	Most of this was not in force in 1986/87. This Act creates the College of Teachers whose object is to establish (having regard to the public interest) standards for the education, professional responsibility and competence of its members and applicants for membership and consistent with that object to encourage the professional interest of its members in those matters.
School Support (Independent) Act	Governs the financial basis of government funding to independent schools and provides for voluntary accreditation for non-funded and independent schools.

NOTE: Other lesser-known statutes administered by the Ministry are the *School District Housing Act* and the *Music Teachers (Registered) Act*.

B. Provincial Legislation Having an Impact on the Ministry, 1986/87

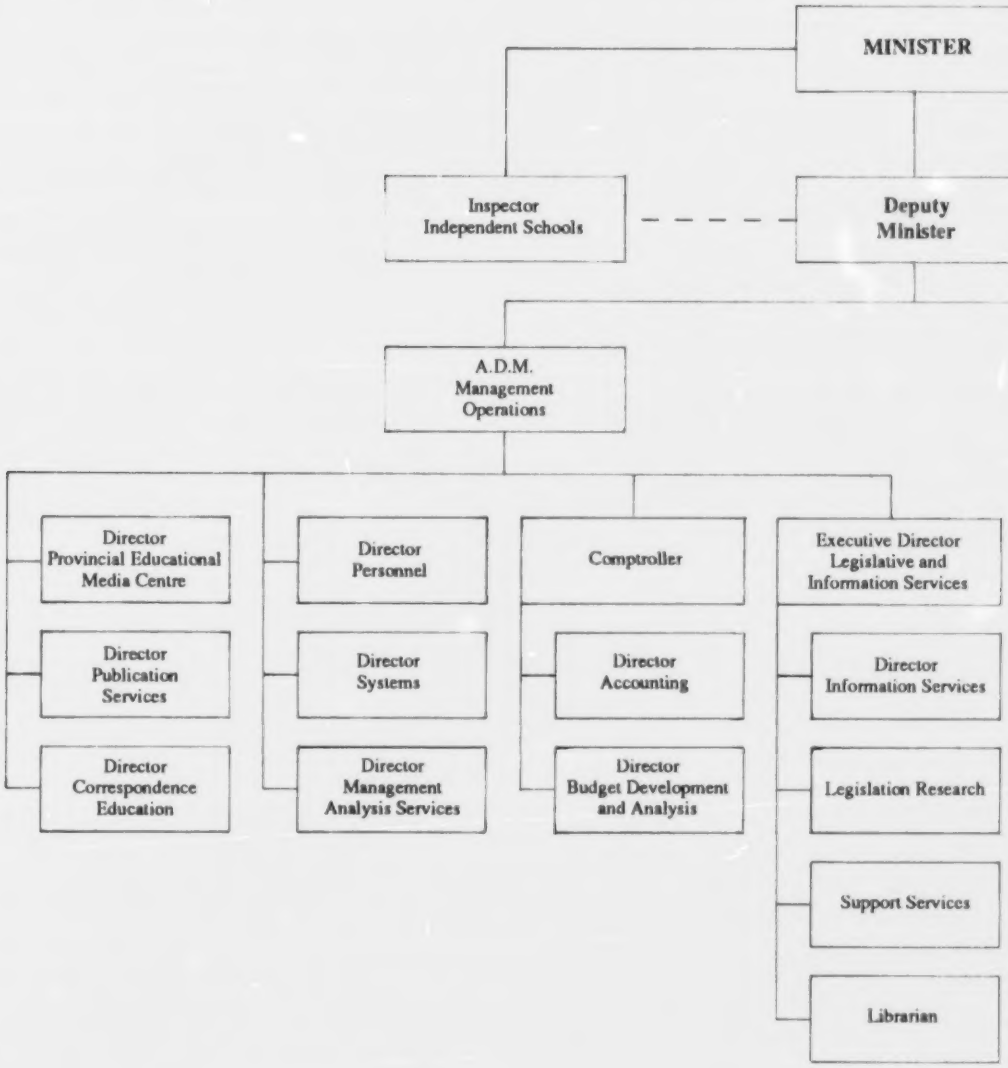
Auditor General Act
College and Institute Act
Compensation Stabilization Act
Employment Standards Act
Financial Administration Act
Financial Information Act
Health Act
Home Owner Grant Act
Human Rights Act
Institute of Technology Act
Labour Code (Industrial Relations Act) Act
Municipal Act
Pension (Public Service) Act
Pension (Teachers) Act
Public Sector Restraint Act
Public Service Act
Purchasing Commission Act
School District Capital Finance Act
Supply Act
System Act
University Act
Young Offenders (British Columbia) Act

C. Federal Legislation Having an Impact on Education, 1986/87

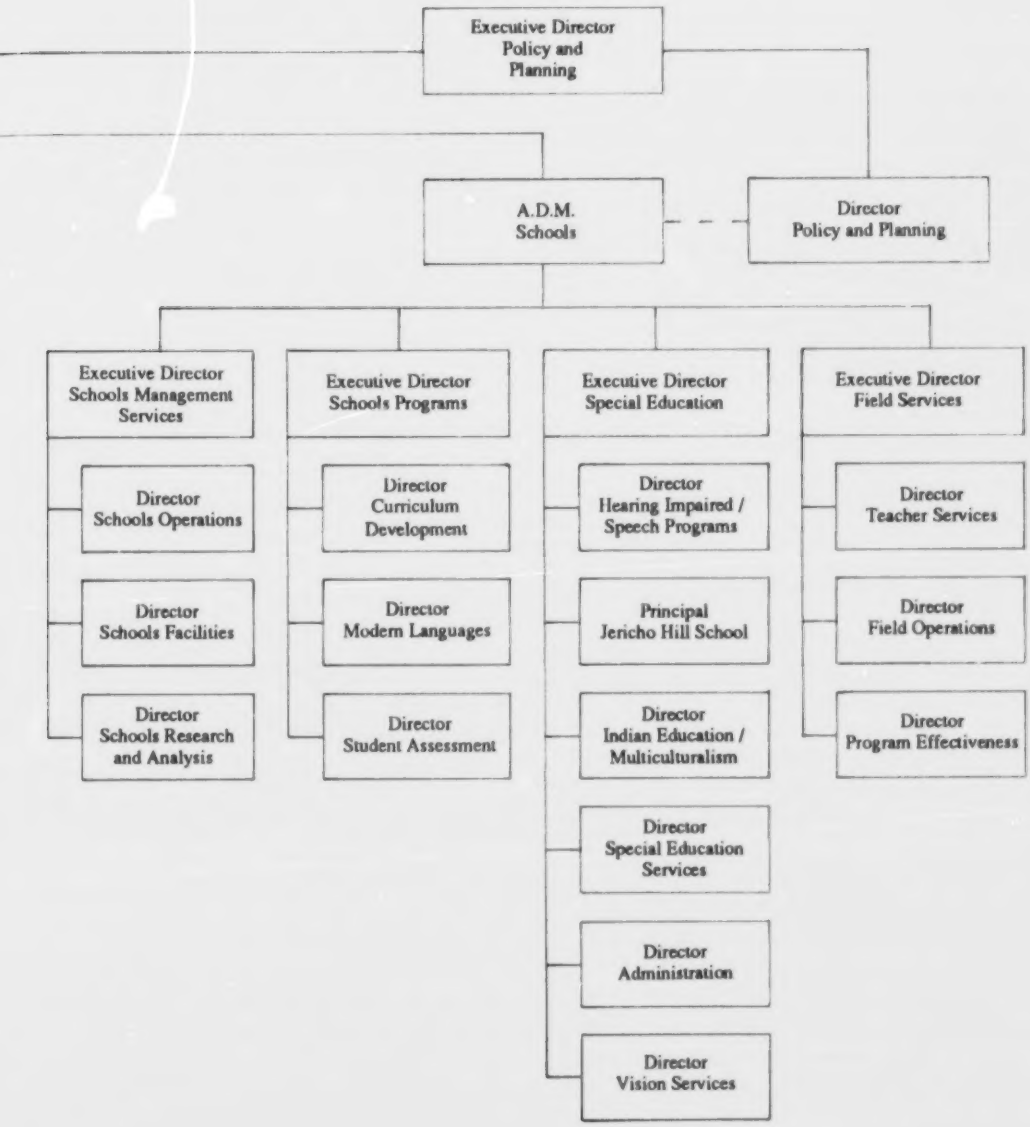
Canadian Human Rights Act
Constitution Act, 1982
Department of Indian Affairs and Northern Development Act
Federal-Provincial Fiscal Arrangements and Established Programs Financing Act
Indian Act
Metric Conversion Act
Official Languages Act
Statistics Act
Young Offenders Act (There is also a provincial Act with a similar name)

ORGANIZATION CHART

Ministry of Education as at June 30, 1987



NOTE: The Ministry of Education was re-organized July 20, 1987, resulting in a slight reduction in staff.


Executive Director
Policy and
Planning
A.D.M.
Schools
Director
Policy and Planning
Executive Director
Schools Management
Services
Director
Schools Operations
Director
Schools Facilities
Director
Schools Research
and Analysis
Executive Director
Schools Programs
Director
Curriculum
Development
Director
Modern Languages
Director
Student Assessment
Executive Director
Special Education
Director
Hearing Impaired /
Speech Programs
Principal
Jericho Hill School
Director
Indian Education /
Multiculturalism
Director
Special Education
Services
Director
Administration
Director
Vision Services
Executive Director
Field Services
Director
Teacher Services
Director
Field Operations
Director
Program Effectiveness

MINISTRY STAFFING AS AT JUNE 30, 1987

The Ministry was staffed by the equivalent of 380 full time employees (FTE's).

Minister's Office	6.00
Independent Schools	3.00
Deputy Minister's Office: general	11.00
	20.00
Schools Department	
Programs Division: general	3.00
Curriculum Development	20.00
Modern Languages Services	9.00
Student Assessment	34.00
Schools Management Services: general	2.00
Schools Research & Analysis	6.00
Schools Operations	4.00
Schools Facilities	11.00
Field Services	10.00
Program Effectiveness	1.00
Teacher Services	11.00
Special Education	22.00
Jericho Hill School	77.06
	210.06
Management Operations Department	
Personnel Services/Human Resources Development	6.00
Legislative Services	7.00
Information Services	4.00
Support Services	4.00
Systems Services	14.42
Ministry Comptroller's Division: general	2.00
Accounting Services	11.00
Budget Development & Analysis	3.00
Provincial Educational Media Centre	26.42
Correspondence Education	44.00
Publication Services	28.10
	149.94

NOTE: The Ministry of Education was re-organized July 20, 1987, resulting in a slight reduction in staff.

MANAGEMENT PERSONNEL AS AT JUNE 30, 1987

MINISTER'S OFFICE

Minister of Education
The Honourable A. J. Brummet

DEPUTY MINISTER'S OFFICE

Deputy Minister of Education
A. L. Peel

Assistant Deputy Minister - Schools Department
J. R. Fleming

Assistant Deputy Minister - Management Operations Department
C. Daneliuk

Executive Director, Policy and Planning
J. J. Mussio

Director, Schools Policy & Planning
M. C. Shoop

Executive Coordinator
W. Stavdal

INDEPENDENT SCHOOLS

Inspector of Independent Schools
G. G. Wall

Assistant Director, Independent Schools
G. W. J. Ensing

SCHOOLS DEPARTMENT

Assistant Deputy Minister
J. R. Fleming

Programs Division

Executive Director, Programs
O. Bedard

Director, Curriculum Development
B. Frankcombe

Assistant Director, Curriculum Development
M. Hoebel

Assistant Director, Curriculum Development
J. K. Matthews

Assistant Director, Curriculum Development
R. Syme

Director, Modern Languages Services
G. Mills

Coordinator, French Programs
C. Fournier

Director, Student Assessment
B. C. Carbol

Assistant Director, Administration
J. A. Frisk

Assistant Director, Examinations
R. Tomusiak

Assistant Director, Learning Assessment
M. J. Kozlow

Division of Field Services

Executive Director, Field Services
W. J. Desharnais

Director, Field Operations
D. R. Smyth

Assistant Director, Field Services
T. Good

Director, Program Effectiveness
R. Watson

Assistant Director, Program Effectiveness
L. Gray

Assistant Director, Program Effectiveness
R. Mark

Director, Teacher Services
E. D. Cherrington

District Superintendent, Keremeos
M. Roscoe

Division of Special Education

Executive Director, Special Education
D. L. Hartwig

Director, Indian Education
T. G. Ellwood

Director, Special Education Services
C. Soler

Director, Administration
R. L. Connolly

Director, Vision Services
E. Y. P. Lau

Director, Hearing Impaired and Speech Programs
H. Minto

Principal, Jericho Hill School for the Deaf
J. Anderson

Vice Principal, Jericho Hill School for the Deaf
N. E. Miller

Division of Schools Management Services

Executive Director, Schools Management Services
B. D. Anderson

Director, Schools Operations
L. A. Rudosky

Director, Schools Research & Analysis
I. J. Cameron

Director, Schools Facilities
K. C. Starling

Acting Project Control Manager
L. K. Hunt

MANAGEMENT OPERATIONS DEPARTMENT

Assistant Deputy Minister
C. Daneliuk

Acting Director, Legislative Services
R. C. May

Director, Information Services
J. M. Birch

Manager, Support Services
L. C. Hughes

Librarian
N. Lofthouse

Manager, Special Projects
G. Gamble

Ministry Comptroller
S. W. Woodward

Director, Accounting Services
C. R. Riopel

Director, Budget Development & Analysis
C. L. Clark

Director, Personnel Services
D. E. Newman

Senior Personnel Officer
D. J. Wright

Director, Systems Services
J. Roche

Director, Management Analysis Services
M. A. Rhodes

Director, Correspondence Education
W. B. Naylor

Assistant Director, Correspondence Education
E. Walker

Assistant Director, Correspondence Education
L. Restall

Director, Provincial Educational Media Centre
W. L. Groutage

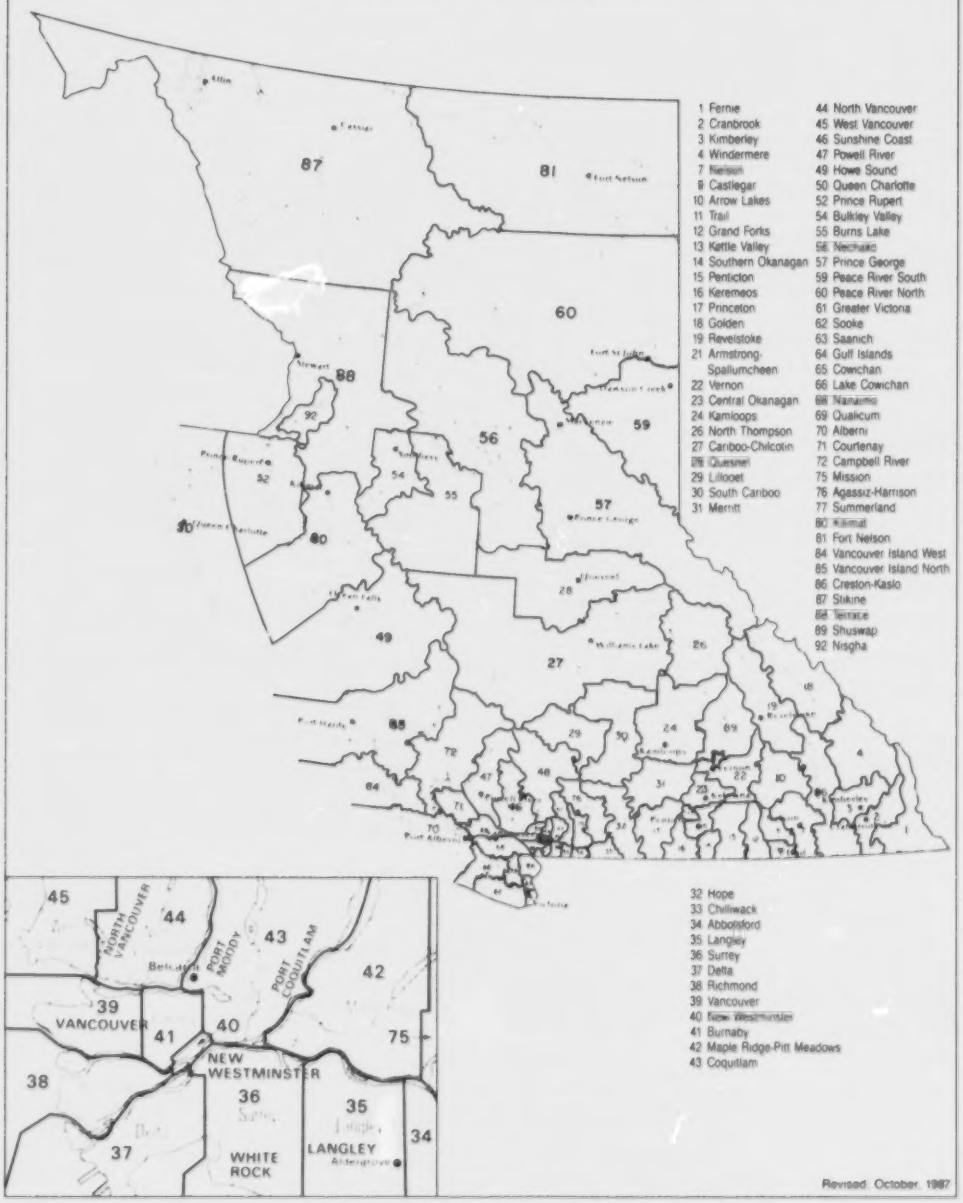
Director, Publication Services
P. J. Northover

Assistant Director, Publication Services
G. Howard

NOTE: The Ministry of Education was re-organized July 20, 1987, resulting in a slight reduction of staff.

THE SCHOOL SYSTEM

BRITISH COLUMBIA SCHOOL DISTRICTS



Revised: October, 1987

PUBLIC SCHOOL EDUCATION

INTRODUCTION

The Schools Department section of the ***Annual Report*** is arranged under the goals and attributes discussed in the Introduction to the ***Annual Report*** and deals with the B.C. public school system as a whole. The analyses which follow focus on common characteristics of school districts which may be used to monitor how well the provincial system is achieving its goals and acquiring the desired attributes. The data included here relate primarily to the 1986 calendar year and 1986/87 school year. Where possible and appropriate, data are placed in an historical context and references are made to differences between school districts.

GOALS OF STUDENT DEVELOPMENT

A major function of the public school system is the transmission of knowledge and values which society considers important. It is generally agreed that schools have a role to play in many areas of a student's development, although there is not public consensus about certain specific topics, such as religion and sex education.

Most members of society, however, would agree that the school system plays a major role in students' intellectual development, a lesser role in their vocational development, and shares responsibility with the family and other agencies for students' social and human development. This part of the report addresses those four topics.

INTELLECTUAL DEVELOPMENT

The major task of a public school system is to provide intellectual development for children. This includes providing opportunities for individuals to develop the ability to analyze critically, to reason and think independently, and to acquire basic learning skills and bodies of knowledge. Individuals should also acquire a lifelong appreciation of learning, a curiosity about the world around them, and a capacity for creative thought and expression.

The principal indicator of whether or not the system is meeting this goal is academic achievement. This section discusses various measures of achievement including graduation rates, provincial Grade 12 examinations, and the Provincial Learning Assessment Program.

Academic Achievement

Graduation Rates of Grade 12 Students

One key indicator of academic success is the graduation rate of Grade 12 students. In order to achieve a high school graduation (Dogwood) diploma, Grade 11 and 12

students must complete 13 courses of which five are prescribed (an English course in Grades 11 and 12, a science and a mathematics course in Grade 11, and Social Studies 11). Of the eight electives, at least three must be provincially authorized Grade 12 level courses and no more than two can be locally-developed courses. Provincial examinations must be written in the Grade 12 English course and in most Grade 12 level academic courses. Detailed information on graduation requirements is given in the Ministry's publication ***10 Plus: 1987 Handbook for Academic and Career Planning.***

Table 2.1 shows graduation rates since the 1980/81 school year. The graduation rates are a percentage of September Grade 12 enrolment.

Table 2.1

Graduation Rates of Grade 12 Students
(1980/81 - 1986/87)

	Sept. 30 Grade 12 Enrolment	Number of Grade 12 Graduates	Grade 12 Grads as a % of Enrolment
1980/81	36,704	29,292	*76.6
1981/82	36,189	29,911	*79.7
1982/83	36,387	29,111	*76.3
1983/84	35,633	26,936	*75.6
1984/85	34,889	27,538	**78.8
1985/86	34,694	25,376	***73.1
1986/87	34,913	24,815	***71.1

NOTE: All graduation rates are shown as a % of September enrolments.

Sources: * Form E21;
** Phone survey; and
*** Ministry of Education Transcript System.

Grade 12 Academic Performance

The purpose of the Grade 12 provincial examination program is to ensure that Grade 12 students meet consistent provincial standards of achievement in academic subjects. The examination program also attempts to ensure that students graduating from all schools in the Province will be treated equitably when applying for admission to post-secondary institutions, and provides useful feedback to the schools and teachers for program evaluation purposes. Complete versions of past provincial examinations, including keys and scoring guides, are available through the Publication Services Branch of the Ministry of Education.

Provincial examinations are designed to test student achievement in the core curricular objectives of each examinable subject. Under coordination with the Ministry's Curriculum Development Branch, committees of experienced teachers conduct the necessary development, review, and marking tasks in order to ensure the examinations reflect the goals and objectives of the curriculum. During the report period, the Ministry again received excellent professional assistance from teachers throughout the Province.

Examinations were written by students who took one or more Grade 12 examinable courses. Some independent school students as well as students from the Yukon Territory also wrote B.C. provincial examinations. Because of the inclusion of these students, and because some students wrote at more than one session, the number of students registered to write provincial examinations exceeded the number of students enrolled in public schools in Grade 12. (Independent schools are discussed in a separate section of the ***Annual Report.***) Table 2.2 summarizes public school student participation in the program for 1985/86 and 1986/87.

Table 2.2

Student Participation in Provincial Examinations (1985/86 and 1986/87)

	1985/86		1986/87	
	Students Registered to Write	Number of Papers Written	Students Registered to Write	Number of Papers Written
January	9,935	18,239	12,041	19,898
June	28,600	67,499	33,326	74,649
August	900	1,474	N/A	1,324
Total	39,435	87,212	45,367	95,871

Source: Student Assessment.

Changes in the examinations program for 1986/87 included introduction of two new examinable courses, Communications 12 and Français-Langue 12, and the use of video testing of listening skills in both French 12 and Français-Langue 12.

Combined Grade Results

In each subject, final letter grades for students are determined by combining 50% of examination marks and 50% of school-awarded marks.

Table 2.3 shows the percentage of students in each final letter grade category for 1983/84 and 1986/87 (January and June).

Table 2.3

Provincial Final Examination Results
(1983/84 and 1986/87)

	Number of Students		% Students in Each Letter Grade Category					
			B or Higher (> 72%)		P to C+ (50% to 72%)		F (< 50%)	
	83/84	86/87	83/84	86/87	83/84	86/87	83/84	86/87
Algebra	11,795	12,132	34.0	34.9	56.0	56.0	10.0	9.1
Biology	7,649	9,110	36.0	35.4	58.0	57.6	6.0	7.0
Chemistry	5,692	6,535	41.0	46.5	53.0	51.8	6.0	5.3
Communications	N/A	5,118	N/A	15.4	N/A	82.2	N/A	2.4
English	28,067	27,659	27.0	32.6	68.0	63.1	5.0	4.3
English Literature	4,121	4,286	34.0	35.0	58.0	57.9	8.0	7.1
French	4,685	5,621	41.0	45.1	53.0	50.9	5.0	4.0
Geography	7,914	9,010	30.0	27.4	64.0	66.4	6.0	6.2
History	7,784	8,440	33.0	33.9	58.0	59.1	9.0	7.0
Physics	3,670	3,705	41.0	45.3	53.0	48.0	6.0	6.7
Français-Langue*	N/A	152	N/A	40.8	N/A	57.9	N/A	1.3
Geology*	495	498	27.0	29.9	59.0	66.3	14.0	3.8
German*	166	198	54.0	63.6	43.0	34.9	4.0	1.5
Latin*	24	28	67.0	71.4	33.0	28.6	0.0	0.0
Spanish*	126	158	67.0	55.1	31.0	39.2	2.0	5.7

***NOTE:** Due to the limited number of students writing these examinations, care should be taken when interpreting results. 1986/87 was the first year for Communications and Français-Langue provincial examinations.

Source: Student Assessment. (Includes only those students with valid exam and school marks.)

In 1986/87, the percentage of students achieving a "B" or above ranged from 15.4% to 71.4%; the percentage of students failing ranged from 0% to 9.1%. The five subjects having the smallest enrolment were written by so few students (fewer than 1100 students altogether); peculiarities in mark distribution might be explained simply by the ability of students. If only 200 students write an examination, the range of marks which might be expected in a larger group is less likely to occur. Except for the courses with low enrolments, the failure rates have been fairly stable from 1983/84 to 1986/87. The percentage of students receiving B or higher has increased in ten subjects and decreased in three subjects; the largest change was in Chemistry 12 with a 6% increase.

Communications 12 was designed for students who do not intend to pursue university, and who might have problems passing the regular English 11 and 12 courses. As a result, the English examination committee felt that relatively few top

marks should be awarded in that course. This seems to have reflected what was done in the field.

Interpreting examination results is a complicated process. To help people to do this, the Ministry distributes the ***Provincial Examination Interpretation Guidelines*** to schools and districts, together with examinations summary reports, following each examination session. The publication identifies a variety of factors that should be taken into account when comparing results.

Out of 38,029 Grade 12 students (including Group II Independent Schools and Yukon students) who were registered in a program leading to a high school graduation (Dogwood) diploma, 18.51% achieved honours standing.

Scholarship Examinations

The Ministry of Education provides scholarships to students who do well in special scholarship examinations. The scholarships are in the form of vouchers, which may be cashed when students attend either a training program approved by the Ministry of Advanced Education and Job Training or a post-secondary institution. Provincial scholarships are awarded annually to a maximum of three percent of the provincial Grade 12 population. The twenty highest ranking candidates each receive $2,000, while the remaining qualifying candidates each receive $1,000.

Scholarships are awarded to students on the basis of Standard Ministry Scores (SMS's), which are calculated from combined Provincial and Scholarship Examination scores. Each student's three best SMS's are combined to obtain a Total SMS.

If a district does not have a provincial scholarship winner, a provincial grant of $1,000 is provided under a separate program to the first-ranked scholarship student in that district who satisfies the qualifying criteria.

Table 2.4 shows the number of Grade 12 students who have written scholarship examinations since 1981/82. Participation has remained constant except for 1983/84, when the reintroduction of provincial examinations, and consequent changes in the system, reduced participation.

Table 2.4

Student Participation in Scholarship Examinations
(1981/82 - 1986/87)

	Number Participating	% of Grade 12 Enrolment
1981/82	5,684	15.6
1982/83	6,036	15.9
1983/84	4,705	12.7
1984/85	5,200	15.1
1985/86	5,400	15.6
1986/87	5,572	16.0

Source: Student Assessment.

In addition to the provincial program, the Ministry also provides district awards and scholarships to recognize students who are identified by their school district as excelling in programs which emphasize vocational courses, technology, or the visual

and performing arts. One percent of the Grade 12 students in each district are eligible to receive district awards of $500. Each award-winning student is also provided with a $500 voucher which can be redeemed upon acceptance into a post-secondary institution. In 1986/87, 381 students received district awards.

General Educational Development Testing Program

The purpose of the General Educational Development (GED) Testing Program is to provide adults age 19 and over, who have not graduated from secondary school, with assistance in pursuing educational and vocational goals. The G.E.D. program is managed by the Ministry with cooperation from regional colleges and other institutions throughout the Province, where tests are administered. Results on each test are given as 'standard scores', ranging from 20 to 80, which compare the examinee's results to those for a recent national sample of secondary school seniors. Upon successful completion of the test, adults are awarded a British Columbia Secondary School Equivalency Certificate. Table 2.5 details participation in the program since 1982.

Table 2.5

Participation in the General Educational Development Test Program (1982 - 1987)

	Number Participating	Change Over Previous Year	Success Rate
1982	5,068	+2.9%	81.9%
1983	4,250	-16.1%	77.1%
1984	3,965	-6.7%	79.6%
1985	3,300	-16.8%	76.9%
1986	3,890	+17.9%	75.3%
1987*	3,300	N/A	75.9%

*Number to June 30, 1987.

NOTE: Success rate is the percentage of candidates who passed the complete battery of tests.

Source: Student Assessment.

The Table shows that while there is an increase in the number participating, the success rate has been declining. The change is not constant in size or direction, however, and may reflect minor differences in the abilities of students participating from year to year.

Beginning in 1987, follow-up data will be collected from G.E.D. candidates about the effect of successful completion of the G.E.D. tests on changes in their educational and vocational status. A pilot study is currently being conducted with individuals who successfully completed the tests between October and December 1986.

Provincial Learning Assessment Program

Each year, the Ministry of Education attempts to ascertain how well the provincial curriculum is being mastered by students by conducting an assessment of one subject area. Usually, all students in three grades (commonly 4, 7, 10) write the assessment.

Results of the assessments are used by districts to alter programs, and by the Ministry to guide curriculum revision.

In 1986/87, Programme Cadre de Français, a program for students of French parentage, and French Immersion, a program for students whose native language is not French, were assessed. This is the first time an assessment has been done on these programs.

All Grade 4 and Grade 7 students in French Immersion programs participated in an assessment of French language skills. Reading skills were measured for all participants, while speaking and listening skills tests were administered to approximately 20% of the students. A committee of experts interpreted the results and concluded that the students were satisfactory or better in all areas evaluated. Students in Programme Cadre de Français also wrote the reading tests, but results for these students are not included in the provincial report because the assessment instruments were designed for French Immersion students. Data will be provided to districts to give them an indication of students' reading achievement in this program.

School district personnel and teachers have expressed a need for resource materials in the area of oral communication in English language arts. Resource materials have been prepared to assist teachers in planning instruction for the development of speaking and listening skills, and in evaluating student performance. Approximately 250 teachers used pilot versions of the resource packages during the spring of 1987. The responses from these teachers have been very positive. The packages are being revised for distribution in January 1988.

Inter-provincial and International Comparisons

A question of primary interest to educators in B.C. is: "How do B.C. students compare to students in other provinces or countries?" Unfortunately, this question is difficult to answer because of differences in curricula and in examination and assessment procedures. It is not possible to carry out routine comparisons of B.C. results with those of other jurisdictions.

Whenever possible, the Student Assessment Branch participates in studies carried out by the International Association for the Evaluation of Educational Achievement (IEA). The IEA is a non-governmental organization of research institutions which cooperate in conducting cross-national educational research. Such international research must deal with problems resulting from distance, poor communication and participants from distinct cultures. It is necessary to balance quality of research against the time lag from initiation of a project until results are available.

The Second International Study of Mathematics was administered in 1980 through 1982. Canadian results were available in 1986, but results from some countries were not available until later. Results of that assessment were reported in the 1985/86 ***Annual Report.*** Briefly, B.C. students compared very favourably with students from other jurisdictions, scoring highest of students from all English-speaking countries that took part.

The Second International Science Assessment is currently underway and results should be available by 1988.

There is a minimum of three years from the time tests are administered until final reports are produced. Although such studies are useful for identifying long-term trends, they have limited application for immediate input to curriculum modification.

VOCATIONAL DEVELOPMENT

The school system should assist in developing in individuals the means to attain their occupational and career objectives. Students should have opportunities to develop effective work habits and the flexibility to deal with changes and challenges in the work place.

While schooling, in general, contributes to this goal, Career Preparation programs are specifically designed to provide students with the opportunity to pursue vocational studies in a selected career area, combined with regular secondary experiences, thus qualifying the students for employment and/or entry into a post secondary program. The programs consist of the three courses in each of Grade 11 and 12. In Grade 12, the student gains a practical orientation to employment through work experience with an employer. Table 2.6 shows the increase in career preparation enrolment, and incidence, since 1980/81.

Table 2.6

Career Preparation Enrolment

(1980/81 - 1986/87)

	Career Preparation Enrolment September 30	Number of Associated Schools	Districts
1980/81	2,746	59	35
1981/82	4,402	78	40
1982/83	5,398	88	41
1983/84	6,117	93	42
1984/85	6,181	93	42
1985/86	6,259	92	42
1986/87	6,908	97	42

Source: Schools Research and Analysis.

SOCIAL DEVELOPMENT

Social development includes assisting students to develop an understanding concerning their relationship to the world, a tolerance and respect for the ideas and beliefs of others, and an ability to live and work with other people. Student exchange programs offer unique opportunities for social development and the Ministry is directly involved in the coordination of a number of these programs. The two major programs are the Interchange on Canadian Studies and the German Exchange Program.

In the Interchange program, approximately 400 Grade 11 students representing all provinces and territories attend a five-day conference to exchange ideas and hear speakers on topics of national concern. The 1987 Interchange on Canadian Studies was held in Brandon, giving 15 representatives from across British Columbia the opportunity to visit Manitoba. The program includes an exchange visit during the summer for the students who host a conference delegate.

The German Exchange Program is a six-month academic exchange with students from the Federal Republic of Germany. The students in Grade 10 or 11 are selected for the program on the basis of their fluency in German, since they are expected to continue with an academic program while in Germany. The 1986/87 program involved 37 students from 13 public schools and 4 independent schools. The 1987/88 program will be the largest to date involving 55 students from 17 public schools and 3 independent schools. Although British Columbia participants often experience difficulty with the language, they develop enriched language skills and an understanding of Europe, its people and its history.

Fifteen districts were involved in Ministry coordinated exchange programs. There are also many district and school initiated exchange programs. Although the majority of students come from Lower Mainland districts, there are participants from all over the Province.

HUMAN DEVELOPMENT

The goal of human development includes assisting the student to develop a sense of self-worth and to recognize the importance of physical health and emotional well-being. Although the curriculum, especially through family life education and physical education programs, contributes to this goal, the Ministry has also had to address the issue of child abuse.

The Division of Special Education has several initiatives underway in response to the recommendations of the Sullivan and British Columbia School Trustees' Association (B.C.S.T.A.) reports on child abuse. A coordinator has been hired to oversee these activities. The Inter-Ministry child abuse handbook is being updated. Two protocols have been drafted to address the issues of both multiple child/sexual abuse and alleged abuse by school district employees. A provincial child abuse prevention conference was held in collaboration with the British Columbia Teachers' Federation and British Columbia School Trustees' Association Regional in-service training has been organized for the fall of 1987 to provide district leadership in child abuse prevention. Special Education and Curriculum branches are working together on a child abuse prevention component for the health guidance curriculum, to be implemented in 1989.

ATTRIBUTES OF A QUALITY SCHOOL SYSTEM

The Ministry of Education measures success and achievement of the system in terms of student development and in terms of attributes of the system. The remainder of the Public School Education section deals with those attributes.

ACCESSIBILITY

From the inception of the British Columbia school system over 100 years ago, a major aim has been to ensure that students throughout the Province have as equal an opportunity as possible to attend school. While school districts will offer a greater or lesser variety of courses in accordance with community wishes and local resources, it

is also the aim of the system that no student's education will be adversely affected by a district's lack of resources.

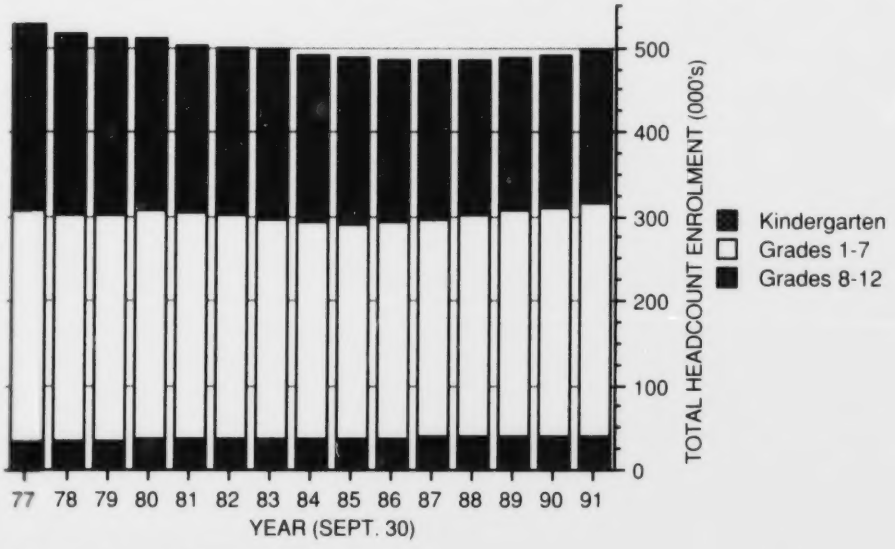
The following section discusses general enrolment trends in specific programs such as languages and Ministry measures which assist the smaller schools and districts to offer a range of educational programs. A discussion on financial measures designed to enable districts across the Province to offer students equal access to programs is found under the attribute of Cost-Effectiveness.

Enrolment and Demographics

In September, 1986, the public school system enrolled 467,053.39 full-time equivalent (F.T.E.) students. Full-time equivalency is a measure of the portion of time each student spends in the classroom. The September 1986 FTE enrolment includes 18,680 kindergarten students, 255,782 pupils in Grades 1-7 and 192,591.39 students in Grades 8-12.

Figure 2.1 illustrates enrolment trends and displays historical headcount enrolments to 1986/87 and projections to 1991.

Figure 2.1
Total Elementary and Secondary Enrolment, including Special Education (1977/78 - 1986/87, with Projections to 1991/92)



Source: Schools Research and Analysis

Table 2.7 shows age groups as of the June 1986 census, September 1986 public school grade enrolment, and the latter as a percentage of the former. While some assumptions have been made about the age distribution of the various grade enrolments (i.e., that kindergarten pupils are five years old, etc.) the table does provide a reasonable estimate of the portion of the eligible population which is enrolled in public schools.

At the elementary level, about 95% of the eligible age cohort appears to be enrolled in public schools. The secondary equivalent is 93%. This suggests the public school system is offering a reasonable level of access to potential students in the Province.

Overall, including the funded 29,768 (headcount September 30, 1986) independent school students, 99.9% of the elementary and secondary school age cohort are enrolled in public or independent schools.

Table 2.7

Comparison of Current Age Groups and Public School Enrolments (June and September, 1986)

Age	Number from June 3, 1986 Census	Public School Enrolment (September 1986)		Enrolment as a % of Age Group
		Grade	Enrolment	
5	39,847	K	37,360	93.76%
6	39,625	1	38,492	97.14%
7	38,970	2	36,892	94.67%
8	37,824	3	35,658	94.27%
9	38,203	4	35,231	92.22%
10	38,199	5	34,745	90.96%
11	38,247	6	35,046	91.63%
12	37,367	7	34,502	92.33%
		Elem. Ungr.	5,216	
Sub-Total Age 5-12	308,282	Gr. K-7	293,142	95.09%
13	38,997	8	36,937	94.72%
14	39,783	9	37,480	94.21%
15	43,366	10	38,571	88.94%
16	43,636	11	38,494	88.22%
17	42,400	12	34,913	82.34%
		Sec. Ungr.	6,684	
Sub-Total Age 13-17	208,182	Gr. 8-12	193,079	92.75%
TOTAL	516,464		486,221	94.14%

Source: Schools Research and Analysis, Ministry of Education; Central Statistics Bureau, Ministry of Economic Development; and Statistics Canada, Ottawa.

Programs

Special Programs

In order to encourage the education of all children, the Ministry shares the cost of special programs with local school districts. Table 2.8 shows funded enrolment in special programs from 1982/83 to 1986/87. For students with severe handicaps and extra program requirements, the Ministry provides 100% of the cost of a variety of specialized services within the Funding and Placement Program. This includes funding for educational services at youth containment centres operated under the aegis of the Ministry of Attorney General.

Special education generally refers to classes for gifted or handicapped pupils. There are two programs which the Ministry includes under special programs which are not traditional special education programs and are not treated as such by most other jurisdictions. These programs are Indian Education and English as a Second Language. Together they had a funded enrolment of 31,587 students or 52.1% of the 1986/87 funded special programs enrolment. British Columbia identifies these students as being in special programs in order to target funding toward their particular requirements.

In 1986/87, pupils in cost-shared special programs accounted for approximately 13% of the B.C. school population. In 1982/83, pupils in these special programs represented about 12% of the school population. While pupil enrolments have generally been declining steadily for at least a decade, enrolment in special programs has shown a fairly continuous increase. In the last five years, special programs enrolments have increased by approximately 9%, while total enrolment has declined by more than 3%.

Enrolments in the programs shown in Table 2.8 have varied over time for a number of reasons. Students sometimes have multiple handicaps. Due to improved diagnostic services and the increased availability of special programs, a student who is mentally handicapped and also has visual impairment may be most appropriately placed in a severe/profound handicapped class. A student with similar needs in 1982/83, might have been placed in a class for the visually impaired. The decrease in hearing impaired enrolment has resulted from a decrease in the incidence of rubella. Increases in English as a Second Language are caused by increased immigration. Growth has also been controlled by the Ministry's policy of reviewing claims in relation to program funding guidelines. This review, in conjunction with assessments by qualified personnel, has led to placements that are consistent with guidelines.

Among individual school districts, the proportion of children enrolled in special education programs ranges from 4% to 18%, when English as a Second Language and Indian Education are excluded. This range can be accounted for, in part, by demographic differences.

In 1986/87, five school districts participated in a pilot evaluation of special programs. The evaluation process, when fully developed, will provide a framework for assessing the quality of special programs.

As in previous years, the Division of Special Education continued to review district programs by sending in teams of specialists to ensure that Ministry guidelines for program delivery are being met. Nine school districts were visited in 1986/87.

Table 2.8
Funded Enrolment in Cost-shared Special Programs
(1982/83 - 1986/87)

Program	Pupil Headcount Enrolment (unless otherwise specified) Sept. 1982	Sept. 1983	Sept. 1984	Sept. 1985	Sept. 1986	% Change over Period
Trainable Mentally Handicapped	1,280	1,467	1,334	1,219	1,254	-2.03%
Severe/Profound Handicapped	325	270	298	357	368	13.23%
Physically Handicapped	443	417	381	386	425	-4.06%
Visually Impaired	495	453	424	370	402	-18.79%
Hearing Impaired	1,123	765	689	692	797	-29.03%
Autistic	167	173	157	154	150	-10.18%
Severe Learning Disabled (FTE)	4,076	3,663	3,900	5,523	6,637	62.83%
Educable Mentally Handicapped (FTE)	3,884	4,293	4,049	4,100	4,108	5.77%
Severe Behaviour (FTE)	2,848	1,984	1,940	2,534	2,573	-9.66%
Rehabilitation (FTE)	3,467	2,860	2,745	3,101	3,161	-8.83%
English as a Second Language	12,966	13,399	15,304	15,673	15,705	21.12%
Indian Education	14,969	12,863	14,938	15,342	15,882	6.10%
Gifted (FTE)	9,529*	9,574	9,443	8,986	9,161	-3.86%
Sub-Total: Special Education Programs	27,637	25,919	25,360	27,422	29,036	5.06%
English as a Second Language	12,966	13,399	15,304	15,673	15,705	21.12%
Indian Education	14,969	12,863	14,938	15,342	15,882	6.10%
Total Cost-Shared Programs	55,572	52,181	55,602	58,437	60,623	9.09%
Special Programs Pupils in Cost-Shared Programs as a % of Total FTE Enrolment (as at Sept. 30)	11.52%	10.90%	11.77%	12.49%	12.98%	
Total Provincial FTE Enrolment	482,255	478,543	472,264	467,767	467,053	-3.15%

* Estimated

NOTE: The table does not include enrolment in the Funding and Placement Program which is a Special Education Program funded 100% by the government including containment centres, Jericho Hill School, provincial resource programs, and district-to-district placements.

Source: Schools Research and Analysis.

Modern Languages and Multicultural Programs

French Programs

The British Columbia school system offers instruction in French as a mother tongue (Programme Cadre de Français) and as a second language (French Immersion and French as a Second Language).

French Immersion is a bilingual program designed primarily for students whose native language is not French. Most districts with a school population over 3,000 now offer a Kindergarten to Grade 12 French Immersion program. Students in the early Immersion program start at Kindergarten or Grade 1, while students in late Immersion programs enter the program at Grade 6. Programme Cadre de Français is designed for students of French parentage. While all secondary schools offer 120 hours of French as a Second Language at the Grade 8 level, programs of varying lengths are offered by the districts at both the elementary and secondary level. The existing French as a Second Language curriculum is currently under review.

Enrolment in both French as a Second Language (elementary) and Immersion programs is up considerably over the past year, possibly as a result of federal and provincial government support of these programs, and of the growing awareness of the advantages of speaking both official languages.

Outlying areas have sometimes found it difficult to attract qualified, French-speaking teachers for Immersion or Programme Cadre. To support school districts, the Ministry has organized and coordinated teacher referral services and recruitment sessions. The Ministry also initiated an Elementary French as a Second Language pilot project for small/remote districts having difficulty establishing this program.

Other Languages

In addition to French programs, a number of other provincially authorized languages including Japanese and Mandarin Chinese are offered. Districts may also offer locally developed courses which are approved by the Board of School Trustees. Classes in the Cree, Kwakwala, and Nisgha languages have been offered as locally developed courses at the senior secondary level.

Table 2.9 shows estimated yearly enrolments in language programs.

Table 2.9

September 30 Actual and Estimated Total Year Enrolments in Language Programs (1985/86 and 1986/87)

Program	1985/86 No. of Pupils	1985/86 No. of Districts	1986/87 No. of Pupils	1986/87 No. of Districts	Change in Enrolment
French as Second Language					
Elementary	76,438	67	86,949	69	13.75
Secondary	87,768	74	97,585	75	11.19
French Immersion					
Elementary	13,990	31	16,828	38	20.29
Secondary	1,362	11	2,057	17	51.03
Programme Cadre					
Elementary	1,464	20	1,562	21	6.83
Secondary	97	8	190	11	95.88
German Grades 9-12	3,746	27	3,645	29	-2.70
Italian Grades 9-12	10	1	17	1	70.00
Japanese Grades 9-12	Not Offered		203	4	N/A
Latin Grades 9-12	366	6	497	8	35.80
Mandarin Grades 9-12	Not Offered		40	2	N/A
Russian Grades 9-12	32	1	14	1	-56.25
Spanish Grades 9-12	2,447	23	2,494	23	1.92

NOTE: Actual September enrolments and estimated enrolment in secondary classes offered later in the school year.

Source: Schools Research and Analysis.

Small Secondary Schools Project

In response to a need expressed during the "Let's Talk About Schools" process a project to assist small secondary schools was organized in 1986/87. Participating in this project is a network of 84 schools in the Province which enrol 100 or fewer pupils in Grades 11 and 12.

The Ministry and districts cooperated in the development of alternate instructional approaches which will enable these schools to offer a wider range of courses. A Physics 12 instructional package was sent to the schools and in-service funding was provided. Similar packages are planned for other senior courses.

Small School District Task Force

There are 17 districts in British Columbia with an enrolment less than 1,200. These small school districts sometimes have problems delivering programs to students. The Ministry of Education has funded a task force, consisting of school district and Ministry officials, which will investigate these problems and present a report to the Minister of Education in 1987/88.

RELEVANCE

It is important that a school system provides students with an education that is seen as relevant to the needs of the student and society. For example, programs, courses and resources should relate to current developments in the academic and employer community.

This section of the report includes curriculum development and revision as well as enrolment patterns in senior secondary courses. Attendance and withdrawal rates are discussed.

Curriculum Development

Relevance depends to a large extent on the curriculum content. In B.C., curriculum development is primarily the responsibility of the Ministry of Education, which develops provincial curricula with the assistance of teachers. Revisions typically take three years. Curriculum development in languages other than English is the responsibility of the Modern Languages Branch. Other subject areas are the responsibility of the Curriculum Development Branch.

All districts offer the provincial course of studies, and all students must successfully complete certain provincial courses in order to graduate.

The provincial curriculum is presented in the form of subject area curriculum guides. The Ministry publishes teaching suggestions and references to supplementary print and non-print learning materials in order to assist teachers to implement the curriculum. Orientation activities, designed to familiarize teachers with curriculum changes, are also undertaken by the Ministry. These are described in the Professionalism section of this ***Annual Report.***

Districts may also offer locally developed courses to meet the needs of their communities. Responsibility for programs is thus shared between the Ministry and the school districts. In 1986/87, there were approximately 700 locally developed courses. In order for a locally developed course to be accepted for credit, the curriculum and any learning materials to be used in the course must be approved by the local Board of School Trustees, and a copy of the curriculum and a list of all textbooks to be used must be forwarded to the Ministry for information.

Curriculum Goals

In 1986/87, a set of general goals for curriculum, derived for subject area curriculum objectives, was put into place to give a consistent direction to curriculum revision. The goals are to promote growth:

1. in the ability to engage in appropriate forms of inquiry (problem solving, decision making, critical thinking, creative thinking) required in the study of school disciplines as well as in situations of every day life involving self, family, society (community, nation, world) and the world of work;
2. in a knowledge base relevant to those situations;
3. in a reflective understanding leading to the ability to select and apply skills and knowledge appropriately (in those situations);
4. of personal and shared attitudes based on an understanding of those of society and a respect for differences (in those situations); and

5. in a positive self-concept based on real competencies and achievements (in those situations).

Revision of Elementary (K-7) Curriculum

Language Arts

A major review of the elementary language arts and secondary curricula commenced in September 1986. Approximately 2,000 survey forms were distributed to all district offices, public schools, and government funded independent schools. The survey was designed to:

- gather demographic information regarding the teaching population;
- assess the state of learning resources;
- assess equipment and facilities; and
- assess the effectiveness of the present curriculum.

Approximately 60% of the forms were returned.

The typical teacher responding had 15 years experience and was between 40 and 49 years of age.

The survey showed that teachers are generally satisfied with the present Language Arts - English curriculum design, but it showed a need at all levels for the curriculum and learning resources to address a wider range of student needs and interests. Other concerns are class sizes, marking loads, and availability of preparation time.

The survey indicated that virtually all teachers supplement the prescribed/authorized texts with other resources. The major reasons given are that the other resources are better matched to the curriculum goals, better suited to student needs/interests, and selected specifically for gifted/enriched and modified/minimum essential programs.

In March 1987, a draft curriculum guide for French Language Arts 1-7 was sent to schools for feedback. The content outlined the communicative framework for the four skills (speaking, listening, reading, writing) and developed the reading component entirely. The remaining three components are still being developed. A response draft will be prepared and sent to the schools. A preliminary selection of new learning resources will be piloted in 1987/88.

Mathematics

A Revised Elementary Mathematics Curriculum Guide 1 - 8 was distributed to schools in June 1987. Textbooks for Grades 1 - 8 were selected in January and became available in the spring of 1987. In addition, funding was made available for the purchase of necessary equipment to use a manipulative approach to teach mathematics in Grades 1 and 2. Implementation of the Grade 1 to 8 mathematics curriculum will begin in September, 1987. Significant changes in the curriculum include:

- an emphasis on problem solving skills throughout the curriculum;
- an emphasis on the use of manipulative materials for instruction;
- increased emphasis on the skills of estimating results of computations and on mental calculations, required when using calculators;
- a decreased emphasis on operations with common fractions;
- increased time devoted to geometry; and
- the incorporation of calculators for a variety of activities.

The French version of the new Mathematics (1-8) Curriculum Guide will be distrib-

uted in the fall of 1987. New learning resources have been identified and will be piloted during the 1987/88 school year.

Science

New learning resources for Grades 4 and 5 Science are available in French through the Publication Services Branch.

Revision of Secondary Curriculum 8 - 12

A priority of the Curriculum Development Branch has been continued implementation of the revised graduation requirements announced by the Minister of Education in October, 1984. The changes were fully implemented as of June, 1987. To aid students in the transition to these new requirements each Grade 10 pupil was provided with the Ministry booklet entitled ***10 Plus: 1987 Handbook for Academic and Career Planning***.

English

Two new alternate senior English courses, Communications 11 and 12, first introduced in 1985, are now in place. These courses provide challenging programs for those students who have difficulty in meeting the expectations of English 11 and 12.

Writing 11 has become two Grade 12 courses: Writing 12 (Creative Writing) and Journalism 12 (Journalism/Media). The purpose of these changes was to provide students more opportunities to meet the graduation requirements.

The secondary English program is presently undergoing review following the procedures which were described earlier under elementary language arts.

Mathematics

The secondary mathematics curriculum has been reviewed based on a series of Province-wide assessments and research, and the results of the International Mathematics Assessment. Draft secondary course materials have been prepared with the proposed changes including:

- the inclusion of data analysis skills;
- greater emphasis on problem-solving, with geometry being used to develop logical thinking skills and problem-solving abilities;
- the mandatory use of calculators in Grades 9-12.
- alternate curriculum for students experiencing difficulties in mathematics at the junior secondary level.

The Grade 9 and 10 mathematics programs will be introduced in September 1988; while Grade 11 and 12 will be introduced in September 1989 and 1990, respectively.

It is expected that the French version of the new interim Mathematics curriculum will be distributed concurrently with the English version.

Social Studies

A new social studies curriculum is being phased into Grades 8 through 11. It focuses on an understanding of geography, as well as Canadian and world history. The new curriculum also encourages students to analyze current issues confronting Canada and its world partners. The History and Geography 12 curriculum revisions currently

underway are scheduled to be completed for implementation in the 1989/90 school year.

Science

The three year implementation period for the revised Science 8-10 curriculum was completed in 1986/87. This new curriculum emphasizes the development of positive scientific attitudes and critical thinking, and uses a variety of instructional strategies. The technological application of science concepts, and the issues raised for society by science and technology are topics in the new curriculum.

The revised Biology 11-12 curriculum is being evaluated after its first year of implementation. The Chemistry 11-12 curriculum is scheduled for implementation in September, 1987. The Earth Science 11 and Geology 12 curricula will have a greater focus on British Columbia due to the introduction of new learning resources.

The new Science and Technology 11 course has been in place for one year and is presently being evaluated. The course focuses on the connections between science, technology and society. The course curriculum and instructional materials were features at a major conference on science and technology education held in Washington, D.C. and in conference publications. This exposure has generated interest and acclaim from other provinces and American states.

The French version of Science Probe 8 is now available. Science Probe 10 is currently being printed, and Science Probe 9 should be available in 1988/89, both in French.

Computer Science

The Computer Science 12 Curriculum Guide/Resource Book was distributed to schools in 1986/87, the first year of required use. This course focuses on computer programming skills, and provides more advanced skills to students motivated by Computer Studies 11, a general computer literacy course. In the first year, 2,521 students enrolled in this course.

Physical Education

A revised Physical Education curriculum for Grade 11 and 12 was introduced into secondary schools in 1986/87. A resource book was developed and other resource materials are under development. In addition to the areas of skill development and fitness, the new curriculum concentrates on active health and personal development.

Miscellaneous Language Programs

The German curriculum is under revision with optional implementation scheduled for September 1988.

The Spanish, Japanese and Mandarin curricula all use the ***Generic Curriculum*** as a model. This curriculum is language-independent and provides a basic model for the development of any new language curriculum undertaken by a district as a locally developed course, or by Ministry committees. This will provide uniformity of approach in language curriculum development around the Province.

Diagnostic Testing

An annotated list of diagnostic tests available in French is being compiled for distribution to schools. The document, intended for teachers and teaching assistants,

touches upon informal evaluation, sight and auditory, spelling, reading and comprehension, mathematics and achievement.

Elementary/Secondary Curricula

Family Life Education

During the spring of 1987, a Family Life Education curriculum was developed for Grades 7 through 12 for implementation in 1987/88. The program requires approximately ten classroom hours at each grade level. Teaching materials to support the curriculum are being developed. Districts have the option of using provincially or locally developed teaching materials, as long as the topics in the prescribed curriculum are covered.

The program is organized around five themes: individual awareness; family expectations and social roles; reproductive biology; sexually transmitted diseases (including AIDS); and personal responsibility and decision making. Students should increase their understanding of how their bodies grow and develop, and how to protect themselves against disease. The program should assist in teaching children about responsible behaviour. This curriculum will be incorporated in the revised Health and Guidance curriculum to be implemented in 1989.

Special Programs

For children receiving Special Education services, teachers are encouraged to prepare Individual Educational Plans (IEPs) which set out a program tailored to the student. IEPs and other program plans are goal-oriented, and adapt the regular curriculum to the needs of these children. For example, the Division of Special Education has begun to develop a curriculum resource document for programs offered at youth containment centres (formerly called reform schools).

A major new resource book for English-as-a-Second-Language (ESL) was distributed to school districts. It is oriented to regular classroom teachers who have no specialized ESL training, and will assist them to accommodate individual ESL pupils in the regular classroom.

Equipment and Resources

In addition to the $11.6 million in base funding for textbooks provided in the fiscal year ending March 1987, an additional $6.2 million was made available from the Fund for Excellence in Education in response to needs expressed by school districts. The Ministry is currently studying the funding and distribution of textbooks.

During the "Let's Talk About Schools" discussions, the government was informed by educators and the public that the use of computers in schools should be a provincial priority. Accordingly, the Province established a Provincial Advisory Committee on Computers (PACC), to provide policy advice to the Minister of Education. The committee, which consisted of members from the Ministry, the teaching profession, universities and colleges, and the business sector, reported to the Minister in June 1987. The Minister will be reviewing the recommendations and needs in this area with Treasury Board in preparation for the next budget.

In the fiscal year ending March 1987, $6.83 million was allocated from the Fund for Excellence for school district special projects in computer technology.

Subject Area Enrolment

One indicator of relevance is enrolment in senior level courses. The Province offers senior students a variety of courses in order that students will have the opportunity to design a program relevant to their needs. Students require a minimum of 13 courses in Grades 11 and 12 in order to graduate. Some of these are prescribed while others are electives. In 1986/87, students could make their selection from approximately 150 provincially authorized courses as well as additional locally developed courses. Changes in course names and variations in district offerings make it difficult to compare some individual course enrolments over time, but subject area enrolments indicate trends in students' preferences.

Table 2.10

Estimated Senior Secondary School Enrolment, By Subject Area (1981/82 and 1986/87)

Subject Area	1981/82	1986/87	% Change
Languages	14,931	21,806	46.0%
Sciences	41,092	59,389	44.5%
Music	6,400	7,927	23.9%
Art	11,832	14,580	23.2%
Social Studies	49,041	55,777	13.7%
Home Economics	24,583	26,113	6.2%
Mathematics	41,911	42,683	1.8%
Guidance	8,854	0	N/A
Consumer Education	0	10,164	N/A
English	63,833	63,458	-0.6%
Business Education	41,298	36,645	-11.3%
Industrial Education	40,218	33,070	-17.8%
Theatre	7,417	5,845	-21.2%
Agriculture	602	469	-22.1%
Physical Education	32,162	21,069	-34.5%
TOTAL	384,174	398,995	3.9%

NOTE: Total Grade 11 and 12 enrolment declined by approximately 675 students from 1981/82 to 1986/87.

Table 2.10 displays subject area enrolments in 1981/82 and 1986/87. Several of the changes are a result of revised program requirements rather than individual choice. For example, Consumer Education, which did not exist in 1981/82, is now a graduation requirement (at either the Grade 9/10 or 11/12 level) while guidance instruction is now reported as part of health and physical education. Consumer Education, which is now shown as a separate subject area, may also be considered a part of Business Education. Thus, enrolment in business related subjects has increased since 1981/82. At least part of the increase in language enrolments is probably caused by revisions to post-secondary entrance requirements.

Recent changes in graduation requirements added a mathematics and a science course at Grade 11, and eliminated Physical Education 11. Enrolment in elective subjects may have changed as students enrolled in the additional required courses.

Some concern has been expressed that revised graduation requirements and an emphasis on academic subjects will cause a decline in visual and performing arts enrolments. Although theatre enrolments have declined, art and music enrolments have increased.

Career Preparation

The Ministry is concerned about the percentage of students who begin but do not complete a Career Preparation Program. In some districts, 80% of the students are in this category. These students do not necessarily leave school but rather transfer from Career Preparation to regular programs. (In September 1986, 6,908 students were enrolled in Career Preparation Programs.)

Because Career Preparation programs have a work-experience component, where students work in local businesses for several weeks, the Ministry provides extra funding for a teacher to coordinate the work experience. Work experience is undertaken only by Grade 12 students.

Attendance, Withdrawal, and Retention Rates

It seems reasonable that students who do not find school relevant, will not attend regularly and/or will drop-out. Attendance and drop-out rates, therefore, are of interest when assessing the relevancy of a school system.

Attendance Rates

Table 2.11 shows attendance rates from 1980/81 to 1986/87. The data indicate that absences for all reasons, including excused absences, such as illness, and truancy, are very low and have varied little over time.

Table 2.11

Total Actual Attendance as a Percentage of Total Possible Attendance (1980/81 - 1986/87)

Year	School Type						Provincial Total
	Elem.	Elem./Jr.	Elem./Sr.	Jr. Sec.	Sec.	Sr. Sec.	
1980/81	94.4	93.7	91.8	91.8	92.0	92.4	93.4
1981/82	95.0	92.8	93.0	92.8	92.1	92.3	93.9
1982/83	95.1	93.2	93.3	91.9	92.7	92.5	94.1
1983/84	95.0	94.1	93.7	93.2	92.3	92.7	94.0
1984/85	95.3	94.6	93.5	93.1	92.7	92.4	94.3
1985/86	95.2	93.1	92.5	93.3	92.4	91.7	94.1
1986/87	95.1	93.3	93.3	93.2	92.7	92.2	94.1

NOTE: Attendance in alternate facilities, i.e., rehabilitation and containment centres, is omitted from the school types in 1983/84.

Source: Schools Research and Analysis.

Withdrawal Rates

A withdrawal is a student who enrols in a public school in September and leaves the system during the school year. Students who withdraw from the school system may have transferred to an independent school or to a school out of the Province; or ceased to attend school.

Withdrawal rates in elementary and secondary are shown in Table 2.12 An analysis of in and out population migration, based on Family Allowance data, indicates that families with students in secondary grades are no more likely to move than are families with students in elementary grades. The higher withdrawal rate in secondary school is likely partly due to students leaving school when they reach age 15. Such students can be considered to be drop-outs.

Table 2.12

Public School Withdrawals

(1975/76 - 1986/87)

School Year	Elementary Withdrawals as a % of Sept. 30 Net Enrolment	Secondary Withdrawals as a % of Sept. 30 Net Enrolment
1975/76	0.31%	8.13%
1976/77	0.29%	8.09%
1977/78	0.28%	8.02%
1978/79	0.23%	8.18%
1979/80	0.25%	8.16%
1980/81	0.23%	8.07%
1981/82	0.21%	6.63%
1982/83	0.19%	6.43%
1983/84	0.23%	6.95%
1984/85	0.23%	6.94%
1985/86	1.04%	7.09%
1986/87	0.97%	7.27%

Source: Schools Research and Analysis.

Secondary withdrawal rates vary considerably among districts. It is unlikely that all students who drop out of school do so because it is not relevant. For example, variations might be due to economic circumstances.

Students in rural districts are slightly more likely to withdraw from school than are students from urban districts, but the differences within each group are much greater than the difference between the groups.

The highest withdrawal rates occur in the districts with the fewest secondary students. Although withdrawal rates in districts enrolling 500 or fewer secondary students ranged from 2.86 to 21.46 in 1986/87, the five districts with rates in excess of 10.00 were in this group.

For school districts enroling 6000 or more secondary students, the rates ranged from 4.49 to 9.74.

District programs aimed at making it easier for students to stay in school may have a considerable impact on the withdrawal rates. For example, School District #3, Kimberley, which enrolled 848 secondary students, had the lowest secondary withdrawal rate in the Province: 1.77. This district has a policy of encouraging potential drop-outs to work with counsellors and staff and stay enrolled. The district thinks that the policy, coupled with special programs for special needs students, explains the low withdrawal rate. School District #87, Stikine, with 158 secondary pupils, has a rate of 4.43% which is also lower than the provincial average of 7.27%. The district attributes this to the large number of courses offered to keep students in school, but notes that this is very expensive.

Differing policies with regard to student expulsion may also have an effect on withdrawal rates. The Ministry hopes to obtain further information on this subject during the 1987/88 school year and to study the area of drop-outs and withdrawals in general during the coming years.

Retention Rates

A retention rate is the ratio of the current year's grade enrolment to the previous year's enrolment in the previous grade (i.e., if 1986/87 Grade 9 enrolment = 100 and 1985/86 Grade 8 enrolment = 110 then the Retention Rate = .91). Retention Rates reflect migration patterns in the general population, student withdrawals, and policies with respect to grade advancement. The provincial retention rate for September 1986 Grade 12 over 1985 Grade 11 was .94; the rate in 1978/77 was .90. The provincial retention rate for September 1986 Grade 1 over 1985 kindergarten was 1.04; the rate in 1978/77 was 1.07.

PROFESSIONALISM

Ministry responsibilities in the area of teacher effectiveness include assisting with the dissemination of effective instructional strategies, and coordinating teacher qualifications and certification.

It is important that schools are staffed with well trained professionals who recognize the diversity of students' needs, and that the Ministry assist educators in obtaining current information on educational matters. Both formal training, which leads to teacher certification, and in-service or professional development opportunities are necessary.

Under the *School Act*, the Lieutenant Governor in Council is responsible for defining regulations governing the certification of teachers in British Columbia. Certificates are issued under the authority of the Minister of Education. The certification function protects the public interest by ensuring a common standard of academic and professional training for all teachers employed within provincial public schools.

By January, 1988, the College of Teachers, a body representing the professional interests of all provincial teachers and administrators, will be in place. Under the *Teaching Profession Act*, the College will assume responsibility for the qualification standards of its membership. Appropriate amendments will have been made to the *School Act* to accommodate the transition of responsibility.

This section of the report includes teacher certification, assessment, and demographics. It also includes a description of Ministry coordinated professional development activities.

Teacher Training and Certification

Teaching Positions and Qualifications

Between September 30, 1985 and September 30, 1986, there was a net increase of 493 teachers. In September 1985, there were 27,551 teachers, 2,222 of which did not return to teaching in September 1986. In September 1986, there were 28,044 teachers including 2,715 new teachers.

Table 2.13 shows the teaching certificates issued during the 1986/87 school year; 314 more certificates were issued than during the comparable period in 1985/86.

Table 2.13

Teaching Certificates Issued

(1986/87 School Year)

	Teaching License	Standard	Professional	Instructor's Diploma	Total
Interim	5	39	572	-	616
Continuing	-	300	1,556	129	1,985
Totals	5	339	2,128	129	2,601

Source: Teacher Services.

In addition, 75 Letters of Permission were issued for the 1986/87 school year, 9 more than were issued during the previous school year. Letters of Permission are temporary credentials, issued for one school year, to untrained or undertrained teachers of specialty subjects, for which no qualified teachers are available.

A significant number of this year's temporary permits were issued to those teaching French Immersion/Program Cadre at the primary level. This indicates a shortage occasioned by the growth in popularity of these programs. The second largest group of Letters of Permission was granted to teachers completing an internship as a component of the Accelerated Program in Industrial Education. The Accelerated Industrial Education Program is for tradesmen requiring a one-year teaching internship, with a Letter of Permission, as a requirement for regular certification. The remainder were issued to those in Section 19 schools, and to those teaching native Indian dialects/culture, band/music, and Mandarin. Section 19 of the *School Act* allows the Ministry to hire a supervisor for 4-9 students who are enrolled in correspondence education where there is insufficient enrolment to establish a regular school (a minimum of 10 students).

Approximately 200 new French Immersion or Programme Cadre teachers will be required in 1987/88, with British Columbia universities producing only 60 or 70. The Ministry coordinates a teacher referral service, and recruitment sessions, to help districts locate qualified teachers for these programs. The Ministry is planning a long-term phase-in for French as a Second Language at elementary level with the appropriate allocations of federal funds for program development, and teacher training and retraining.

Table 2.14 shows the teaching force is well qualified, experienced, and approaching the top level of the salary scales.

Table 2.14
Salary Category by Experience
(1986/87)

	Salary Category	# of Teachers and Experience (Years)					Total
		0-5 Yrs	6-10 Yrs	11-20 Yrs	21-30 Yrs	31+ Yrs	
2	(2 yrs teacher training)	32	36	109	120	29	326
3	(3 yrs teacher training)	397	557	1,103	488	109	2,654
4	(4 yrs teacher training*)	1,379	1,474	2,033	668	134	5,688
5	(5 year degree)	2,464	3,595	4,748	1,585	306	12,698
6	(post-graduate)	176	779	2,517	1,304	345	5,121
	unknown	8	15	41	45	15	124
TOTAL		4,456	6,456	10,551	4,210	938	26,611

*Some with 4 Year B.Ed. Degree.
NOTE: Reporting teachers only.
Source: Schools Research and Analysis.

Age Distribution of the Teaching Force

Table 2.15 and Figure 2.2 indicate that, since 1980/81, the average age of the teaching force has increased.

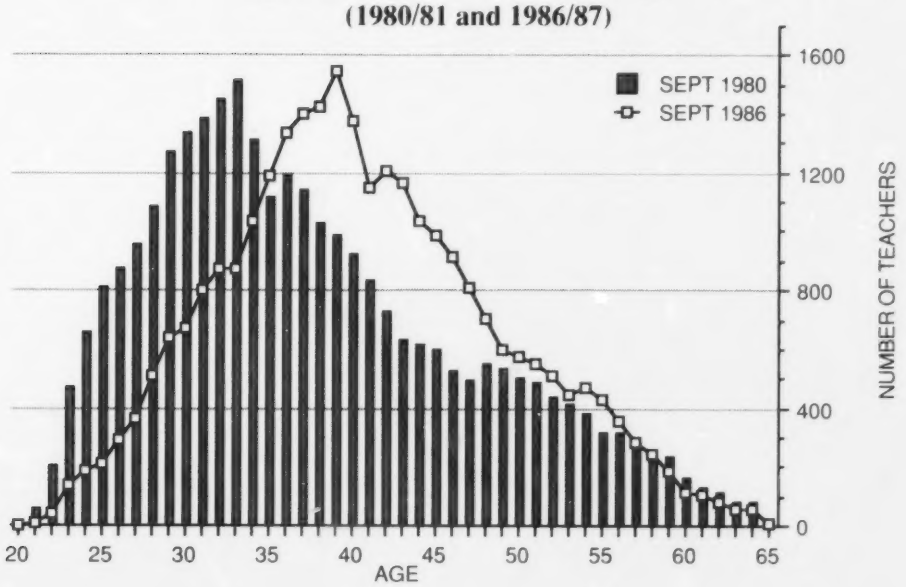
Table 2.15
Age Distribution of the B.C. Public School Teaching Force
(Actual Headcount)
(1981/82 - 1986/87)

	Less Than 21	21-30	31-40	41-50	51+	Not Reported	Total	Average Age
1981/82	8	7,326	12,724	6,402	3,789	0	30,249	38
1982/83	3	5,983	12,897	6,900	3,927	59	29,769	39
1983/84	0	4,648	12,806	7,709	4,220	161	29,544	39
1984/85	0	3,670	12,202	8,243	4,078	54	28,247	40
1985/86	0	2,586	11,561	9,080	4,309	15	27,551	40
1986/87	1	3,096	11,907	9,155	3,872	13	28,044	41

Source: Schools Research and Analysis.

Figure 2.2

Age Distribution of B.C. Teaching Force (1980/81 and 1986/87)



Source: Schools Research and Analysis

Teachers' Early Retirement Incentive Plan

In 1986/87, the Government introduced an early retirement plan for teachers which consists of three programs aimed at creating employment opportunities for unemployed teachers and new graduates about to enter the teaching profession. The significant benefits of the program are:

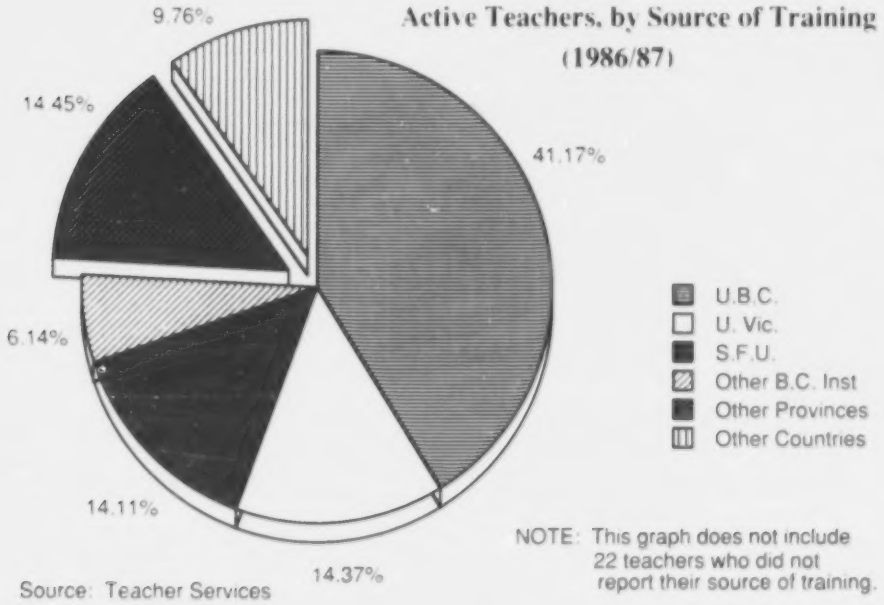
- for persons between the ages of 55 and 60, removal of the pension reduction normally applicable to retirements before age 60;
- for persons under age 55, a retirement gratuity; and
- for persons 55 years of age or older, a phased retirement plan to ease the transition to full retirement.

Source of Training

Figure 2.3 shows the source of training of the teachers employed in the Province in 1986/87. Approximately 75% were trained in British Columbia, 14% elsewhere in Canada, and 10% came from other nations.

Figure 2.3

Active Teachers, by Source of Training (1986/87)



NOTE: This graph does not include 22 teachers who did not report their source of training.

Source: Teacher Services

The total number of teachers employed during the 1986/87 school year (28,044) represents an increase of 493 teachers (1.8%) over the previous school year. This increase in the active teaching force, and the replacement of teachers who retired, took leave of absence, or left teaching for other reasons, has not made a significant difference to the percentage composition by source of training from last year.

Table 2.16 shows the number of provincially trained teachers qualifying for initial certification since 1980/81. The trend reflects the declining number of teaching opportunities for graduates, which in turn, is largely caused by declining enrolment. Increases in the pupil-teacher ratio have also reduced openings for new teachers.

Table 2.16

Change in Number of Faculty of Education Students Qualifying for Initial Certification (1980/81 - 1985/86)

	Total	% Change From Previous Year
1980/81	1,683	- 1%
1981/82	1,498	-11%
1982/83	1,503	0%
1983/84	1,233	-18%
1984/85	1,195	-3%
1985/86	1,128	- 6%

NOTE: 1986/87 data is not available from the universities.
Source: Teacher Services.

Teacher Demand-Supply

Projections suggest elementary enrolments will begin to increase within the next year or two. Total enrolments will increase soon after as the influx of students progresses to secondary school. As discussed earlier, the teaching force is becoming older. Early retirement incentives and natural attrition will produce more vacancies than in the recent past. In 1986/87, a few districts reported difficulty in finding qualified teachers in some speciality areas, and it is expected that this difficulty will increase. These trends may result in an increased demand for teachers. The supply will likely come from both newly certified teachers and those returning to the profession.

Evaluation of Teacher Performance

Central office administrators write evaluation reports on principals and teachers. In addition, the *School Act Regulation* allows district superintendents to direct principals to evaluate the performance of all first-year teachers, and other teachers on staff, every third year of service. These reports are not recorded with the Ministry but are filed in school board offices. The nature and quality of district teacher evaluation practices vary.

The Ministry collects information annually from active teachers. Teachers are asked to report the calendar year in which they last received an official evaluation from either a principal or a superintendent. In September 1986, approximately 70% of the teachers reported that they had an evaluation since 1982 while 30% had not.

Teacher Appeals

The *School Act* provides teachers with statutory provisions for appeal of dismissal, suspensions exceeding 10 days, termination for incompetence, and transfer. Board of Reference are charged with the responsibility of reviewing decisions by school boards to suspend or dismiss teachers for misconduct. Since 1979/80, 45 teachers have appealed to the Board of Reference and three have had the school board's decision

reversed. Review Commissions are charged with the responsibility of hearing appeals from teachers who have had their appointments terminated for less than satisfactory teaching performance. Fifteen teachers have appealed to the Review Commission since 1979/80, and four have had the school board's decision reversed. Forty-eight teachers have requested Transfer Reviews since 1979/80, and eight have had the school board's decision reversed.

Cancellation of Certification

Section 15(g) of the *School Act* entitles the Lieutenant Governor in Council to suspend or cancel a teaching certificate for cause. Gross misconduct, or convictions for certain types of criminal offenses, normally constitute cause for the suspension or cancellation of a certificate. Table 2.17 shows the number of teaching certificates cancelled since 1979/80.

Table 2.17

Teaching Certificates Cancelled

(1979/80 - 1986/87)

Year	Number Cancelled
1979/80	0
1980/81	0
1981/82	0
1982/83	3
1983/84	7
1984/85	7
1985/86	6
1986/87	20

Source: Teacher Services.

The increase in the cancellation of certificates, starting in 1983, reflects the growing number of teachers accused of child abuse (usually sexual abuse of their students). Until that time, there were very few criminal charges in connection with such cases, and there was a general reluctance to face the issue. The *Family and Child Service Act (1981)* makes it mandatory for a person who has reasonable grounds to believe that a child is in need of protection to report the circumstances to the appropriate authority within the Ministry of Social Services and Housing. One or two well-publicized cases in the early 1980's caused students and ex-students to come forward with accusations concerning teachers. Some incidents had occurred many years before.

School boards, the courts and the Ministry of Education are all concerned about this issue, and are doing their best to identify and remove teachers who pose a threat to students and other children. The right to procedural fairness must be observed in all cases, and, given the serious implications of an accusation of child abuse for a teacher's personal and professional future, each teacher so accused must have every chance to clear his or her name.

It is the length of time taken by this process that accounts for the extreme increase in the number of cancellations in 1987. Most of these cancellations are the result of accusations made two or three years ago.

Professional Development

Teacher Exchange

International and interprovincial teacher exchange programs, for which the Ministry provides administrative support, continued to provide excellent professional development opportunities for provincial teachers. During the 1986/87 school year, 242 teachers applied to participate in exchange programs. Of this total, 25 were placed in the United Kingdom, 49 in Australia, 5 in the United States, 1 in West Germany, and 8 in other Canadian Provinces. Table 2.18 provides a summary of exchange placements.

Table 2.18

Summary of British Columbia Teacher Exchange Placements (1921 - 1986/87)

	U.K.	U.S.	Ont.	Que.	Sask.	N.S.	N.B.	Aust.	Other*	Total
1921-1959/60	424	29	40	10	4	6	0	0	1	514
1960/61-1969/70	214	7	9	23	0	0	0	0	1	254
1970/71-1979/80	142	16	19	4	0	0	0	67	4	252
1980/81	12	1	5	1	0	0	0	15	2	36
1981/82	25	4	7	3	0	0	0	22	2	63
1982/83	25	4	3	1	0	1	0	29	0	63
1983/84	19	4	2	0	0	1	0	29	2	57
1984/85	25	5	6	0	0	4	3	43	2	88
1985/86	31	5	3	0	0	7	1	39	2	88
1986/87	25	5	3	1	0	2	1	49	2	88
TOTAL	942	80	97	43	4	21	5	293	18	1503

* Others: P.E.I., Manitoba, Sweden, West Germany, Netherlands

Source: Teacher Services.

School Improvement Activities

During 1986/87, the Program Effectiveness Branch supported efforts of school districts in school improvement planning. These school improvement activities were based on the current research and practice in the area of effective schools and effective teaching.

Table 2.19 below shows the number of school improvement grants for 1984/85, 1985/86, and 1986/87.

Table 2.19
School Improvement Grants
(1984/85 - 1986/87)

	Number of Applications	Number of Schools	Number of Districts	Total Number of Grants	Total Funding
1984/85	47	13	17	47	$48,415
1985/86	77	43	13	56	$55,150
1986/87	135	66	8	74	$52,500

Source: Field Services.

In 1986/87, a survey of district and school personnel about the school improvement project grant program showed that the program was well received.

In 1986/87, a series of workshops was presented to school staffs, and district administrators on effective schools and planning educational change.

The Ministry maintains a School Level Network which provides a registry and directory of people, practices, and programs demonstrating innovation that can be shared throughout the Province. It includes 1,250 educators in 73 school districts in British Columbia. In 1986/87, the Program Effectiveness Branch initiated a similar District Level Network connecting all 75 school districts on projects and activities regarding school and district improvement efforts.

In addition, the Branch sponsored a series of newsletters in support of the Province-wide Young Writers' Network and initiated publication of a research journal on the topic of language instruction.

The Program Effectiveness Branch also continued to perform a clearinghouse role. During the year, it distributed, on request, 875 school improvement project descriptions to 69 districts and 3,300 Research Update bibliographies to 430 educators.

Curriculum Implementation

Once a course of subject area has been revised or a new course developed, the new curriculum must be implemented.

The Curriculum Development Branch is responsible for introducing new curriculum to the teachers of the Province. The delivery system is either direct or indirect, depending on the size and subject expertise of the audience. When the audience is small and highly specialized (e.g., Physics teachers), orientation services can be delivered directly. When it is large and unspecialized (e.g., elementary Math), service is delivered indirectly through a trainer-of-trainers model. In this model, the Province trains educators to present orientation workshops to their colleagues in school districts.

Orientation activities usually take place just prior to and during the year in which a new or revised curriculum is introduced. The Branch offers one-week "summer institutes" co-sponsored with one of the universities. Where appropriate,

these programs are given regionally. During the summer of 1986, Summer Institutes were offered as follows:

Science and Technology 11 - (regional) - UBC
Biology 11-12 - UBC
Computer Science 12 - (regional) - Simon Fraser University
Elementary Fine Arts - University of Victoria
PE 11-12 - (regional) - University of Victoria

During the first year of implementation, one-day workshops are offered at zone conferences co-sponsored with school districts. Conferences were held during the 1986/87 school year in nine of the Province's 11 zones.

Aside from these services, which are conducted for every new or revised curriculum, other forms of in-service training are offered. These include Knowledge Network programming and orientation videotapes developed by the Provincial Educational Media Centre (PEMC).

Special Programs

In order to improve the quality of special education programs, numerous professional development activities have been administered by the Special Education Division of the Ministry including:

Summer Institutes in Special Education;
Principals' and Administrators' Institutes on Special Education; and
Administrative Handbook on Special Education.

The Ministry actively supported two world conferences held in Vancouver during 1986/87. The TESL Canada Conference brought together experts in English as a Second Language from around the world. The World Conference: Indigenous People's Education, also attracted significant international attention and support.

MANAGEMENT AND ACCOUNTABILITY

It is important that schooling be monitored closely and that the public be informed on a regular basis of the system's strengths and weaknesses.

This section describes the role of school boards and of the Ministry in managing the school system. It also includes secondary school accreditation procedures and a description of the Ministry's information/evaluation project. The financial operation of the school system is discussed in the next section, Cost-Effectiveness.

Public School Boards

The British Columbia public school system is operated at the local level by 75 school boards. School boards consist of three, five, seven or nine trustees who are elected by school district residents for a two-year term. In recent elections, approximately 25% of the trustee positions were filled by acclamation.

Changes in school trustee election procedures were announced in 1987. Trustees elected November 1987 will serve for three years, to begin the transition to a three year fixed election cycle put in place with the *Election Reform Act*. In 1988, trustees will be elected for two years and in 1989, no general elections will be held. In November 1990, school boards will all be elected to serve a three year term.

School boards in the Province are responsible for the educational and financial operation of districts. School boards employ teaching and non-teaching staff, maintain district buildings and properties and set policies that provide students in the district with an education which is consistent with community and legislative requirements.

Ministry of Education

The British Columbia Ministry of Education ensures that the Province's education system gives students an opportunity to receive a quality education in a cost-effective manner. The Ministry will provide leadership and encouragement to the education agencies in British Columbia, set an overall direction for the education system and focus on the following areas of high level provincial concern:

- program direction, development and implementation;
- finance and facilities management;
- student access, achievement and preparation for a role in society;
- teaching/instructional performance; including public schools teacher preparation, certification and professional performance.

In 1986/87, the Schools Department consisted of 210 employees. In addition, 19 seconded and contracted employees assisted the department in its operations.

Secondary School Accreditation

Each British Columbia secondary school enrolling Grade 12 pupils is required to complete the Provincial Accreditation Process at least every sixth year. The main purpose of the Accreditation Process is to provide for a systematic evaluation and, through it, improvement of school programs, services, and operations. The evaluation considers community relationships, philosophy and objectives, staff and administration, educational programs for students, provincial regulations and standards, and school facilities.

Schools accredited for five or six years meet all educational requirements and are considered to be managing their own educational services competently. Schools accredited for three or four years are satisfactory in most respects, but require improvement in certain aspects of the school operation. Schools accredited for one or two years need significant aspects of the school program improved. Schools that receive a limited accreditation are expected to put improvements in place within a year, at which time, the Ministry revisits the school to review the progress made.

Table 2.20 displays accreditation status. Twenty-seven schools in twenty-three school districts completed the Provincial Secondary School Accreditation Program during the 1986/87 school year. These schools were awarded accreditation for periods of two to six years. Sixteen evaluations were postponed due to other school-related issues affecting the schedule. Earlier data for comparative purposes are not available.

Table 2.20

Secondary School Accreditation Status
(1985/86 and 1986/87)

	Accreditation Status (Years)						Total	Mean
	1	2	3	4	5	6	Schools	(Years)
1985/86	0	1	1	14	9	3	28	4.4
1986/87	0	0	7	3	13	4	27	4.5

Source: Field Services.

Information/Evaluation Project
The project identified a series of key indicators of the progress of education. During the 1986/87 school year, 12 school districts participated in a pilot project that focussed on the collection and use of some of those indicators. Five of the districts also included indicators that related to special education. In the fall, 1987, the 12 districts will present reports to their respective school boards.

COST-EFFECTIVENESS

In 1986/87, the public school system required $1.95 billion to operate including amounts budgeted by or on behalf of school boards. The following section contains details regarding the calculation of this amount.

In a diverse society with an aging population, schooling is only one of many social responsibilities. Society expects the delivery of education to be fiscally responsible, yet responsive to the need for an adequate provision of service. The current financial management system for British Columbia education attempts to achieve these societal aims through five inter-related sub-systems, including:

1. an information system;
2. a fiscal framework system, which uses that information to determine, by educational activity, the portion of each district's budget in which it will share the cost;
3. a budget system to report projected revenues and expenditures, also by educational activity;
4. a funding system, used to determine budget sharing arrangements and to establish the sources of revenue for school district budgets; and
5. an accounting system, used to record annual expenditures and revenues, in the form of audited financial statements, also by educational activity.

The Information System - The Collection and Analysis of Data

Information about the school system is collected from school districts, including, for example: enrolment; the number of schools; teacher salaries; and the number of special programs and enrolments in those programs.

The Fiscal Framework System - Determining What Ought to be Shared

The fiscal framework system is used to calculate the cost of providing a provincial standard of educational service (or benchmark program) in each school district. This level of service is established by the Ministry of Education in consultation with educators. Approved service levels for all programs are published annually.

The fiscal framework divides educational activities that might occur in a district into seven functions, including:

1. Instruction K-7 (most school-based instruction or administration activities for elementary students);
2. Instruction 8-12 (most school-based instruction or administration activities for secondary students);
3. Special Education Programs (instructional activities for special needs students);
4. District Administration and Instructional Support Services;
5. Operations and Maintenance;
6. Auxiliary Services; and
7. Transportation and Housing.

There are two additional functions included in total school district budgets but outside the bounds of operating budgets or the fiscal framework. They include:

8. Non-Shareable Capital; and
9. Debt Service.

The seven operating functions included in the fiscal framework are further divided into more specific programs. The size of each program is determined by two factors, its service level and cost factor.

Service levels define the amount of an educational activity that the Province feels is required to deliver the standard level of educational service. Cost factors reflect the estimated cost of providing, in each district, the service described in the service levels. Data from the information system described above, are used to produce the cost factors which are used in these calculations. Both service levels and cost factors take into account the different sizes and characteristics of school districts.

Once each program in the fiscal framework is calculated, the resulting allocations are summed to the function level. The total of the seven functions, plus local programs, is the fiscal framework.

Through a careful annual review of the framework by senior representatives from school districts, the fiscal framework is also used to show when the system is not meeting educational standards, either in the form of service or the cost of delivery. Where education service or acceptable costs in the fiscal framework differ from the public perception of what is required, the government is able to examine these services and costs and, if appropriate, alter those factors.

In 1986/87, there were improvements in service levels (e.g.: French language and special needs programs, remote secondary schools, and board office supplies) and cost factors (e.g.: teacher and district administrative salaries, statutory and non-statutory benefits, buildings operations and maintenance, and student busing).

The Budget System - Priorizing, Planning, and Proposed Expenditures

Components of the Total Budget

A school board's budget is comprised of several parts. The largest and most important component is the amount in which the provincial government agrees to share costs, including: the fiscal framework; the employer's contribution to the Teachers' Pension Fund; and the Textbook Credit Allocation Plan (CAP). The latter two amounts are paid by the provincial government on the boards' behalf. The total of these items is termed the shareable operating amount, the operating amount in which the Province is willing to share the cost.

In addition to the shareable operating amount, school boards may budget a supplementary operating amount. This supports programs or costs in excess of the provincial benchmark program. The sum of the shareable and supplementary operating amounts is called the gross operating amount. The gross operating amount, less amounts budgeted by the Province on behalf of school boards (pensions and textbooks), yields the gross operating budget.

The provincial government shares in the cost of most capital projects undertaken by districts, such as new schools, site acquisition or major facilities improvements. This takes the form of contributions to debt service charges for capital projects. School boards may also budget capital expenditures beyond what the Province will share. These capital items are referred to as the non-shareable capital amount and include maintenance, vehicles, and computing equipment.

The sum of the gross operating, debt service, and non-shareable capital amounts yields the gross total amount, the total amount budgeted by or on behalf of public school boards. Subtraction of the amounts budgeted by the Province for pensions and textbooks results in the gross total budget.

Thus, the amounts budgeted by or on behalf of a school board and the agency responsible for determining their size, are:

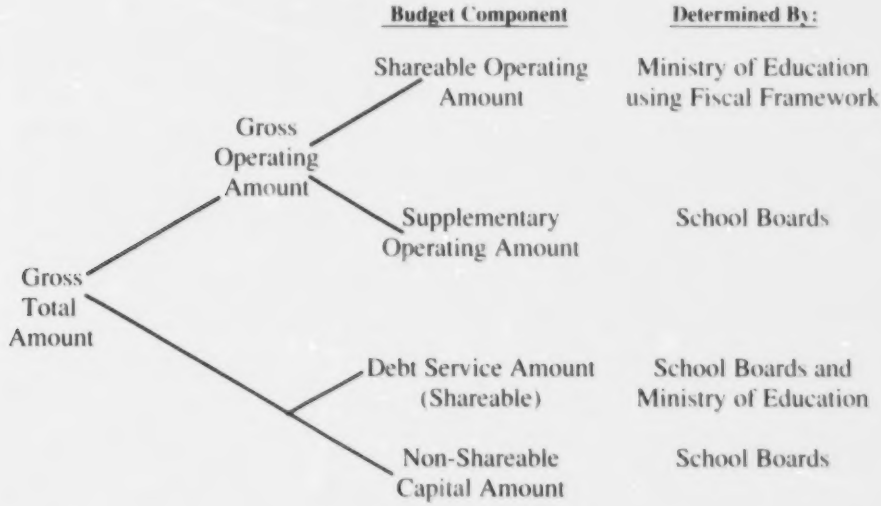
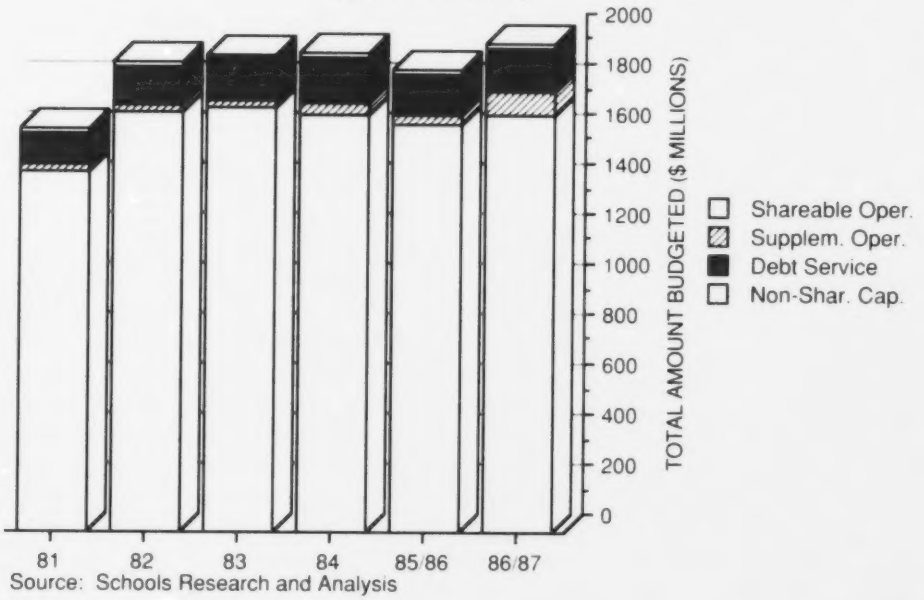


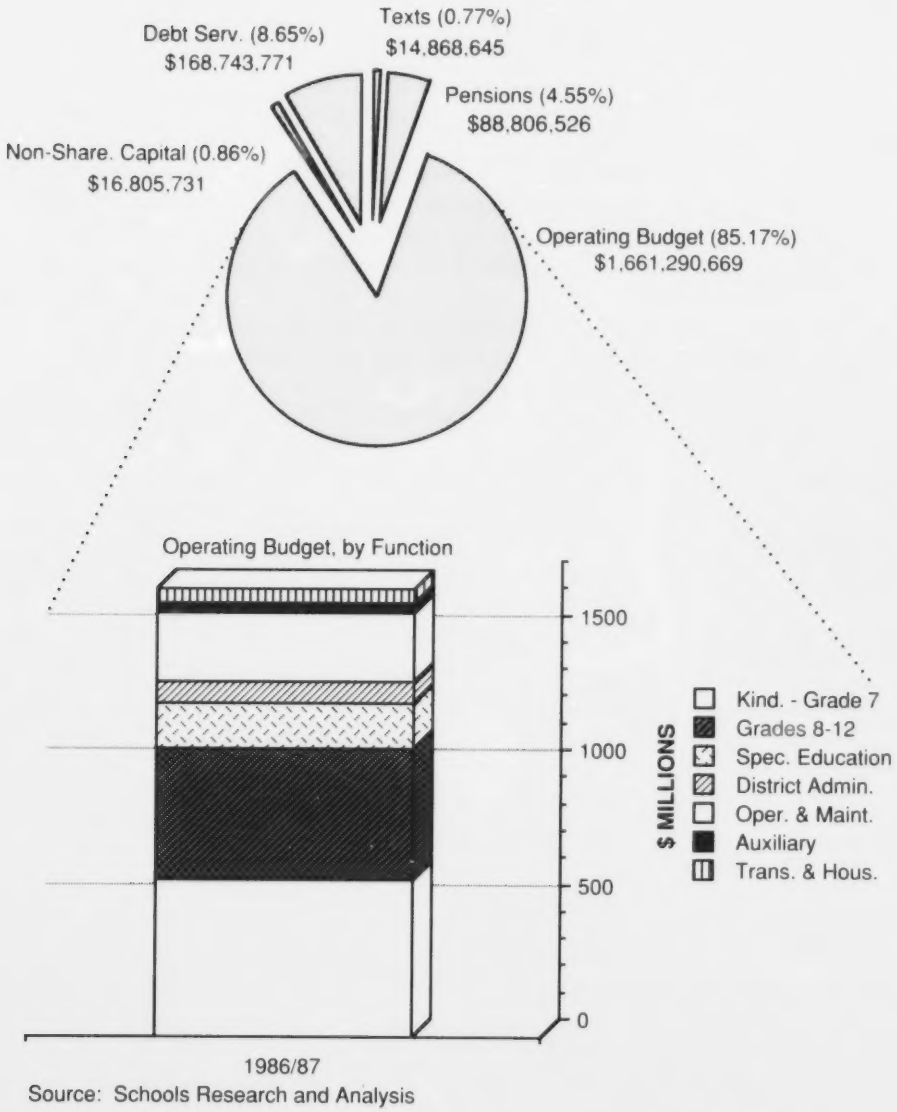
Figure 2.4 shows these amounts since 1981. Figure 2.5 details the 1986/87 gross total amount, including pension and textbook costs, and details the operating budget by function.

Figure 2.4
Components of Amounts Budgeted by or on behalf of Public School Boards, including Pensions and Textbooks (1981 - 1986/87)



Source: Schools Research and Analysis

Figure 2.5
Amounts Budgeted By or on Behalf of Public School Boards (1986/87)



Source: Schools Research and Analysis

The Funding System - The Province's Contribution to Shareable Operating Amounts

The funding system in British Columbia is intended to ensure that all districts have sufficient funds to provide services identified in the fiscal framework, without putting undue burden on individual property owners. The three sources of revenue are: provincial grants; local residential property tax; and miscellaneous revenues.

The Process

Operating Amounts

Each board's shareable operating amount is funded through a combination of provincial grants and local residential property taxes. Provincial operating grants for each school district may include: base; shared services; and special aid grants.

A base grant is provided to all districts and is determined by taking a fixed percentage of the district's shareable operating amount. In 1987/88, this percentage was 55%.

A shared services grant may be provided in support of the remainder of a district's shareable operating amount, depending on the district's ability to pay for it. "Wealthy" districts, that is those with a high residential property value per pupil, are considered able to raise most, if not all, of the remainder of the shareable operating amount through taxes.

Once the size of the provincial grants to any school district have been determined, any remaining amount is raised through the taxation of local residential properties.

Each district's supplementary operating amount, the amount in excess of the provincial benchmark program, must be paid for by local taxpayers. A special aid grant in support of supplementary amounts is provided by the Province to districts having very low residential assessment bases.

Table 2.21 shows the provincial portion at the shareable operating amount since 1984.

Table 2.21

Gross Provincial Contributions as a Percentage of Shareable Operating Amounts (Budget Sharing Ratios) (1984 - 1986/87)

	Average %	Maximum %	Minimum %
1984	77.09	99.86	61.76
1985/86	75.25	99.00	54.83
1986/87	80.51	98.91	55.00

Source: Schools Research and Analysis.

Capital Amounts

Shareable capital amounts, or debt service charges, include principal and interest charges on money borrowed for specific, provincially-approved capital purposes. The Province and the districts share the cost of such borrowing through a complex formula. In 1986/87, the Province paid an average of more than 85% of these costs. In addition to local contributions to shareable capital expenses, non-shareable capital amounts, including all major capital expenditures not approved as shareable, are supported 100% through residential property taxes.

Source and Application of Revenue

All grants and taxes indicated above are reduced, as appropriate, to reflect various miscellaneous revenues received for school operations. These presently reflect less than 5% of total revenues.

Tables 2.22 and 2.23 show both the source and application of revenue budgeted by or on behalf of school boards since 1981. Figure 2.6 shows the overall revenue sources for these amounts since 1981.

Table 2.22

Source and Application of Revenue Budgeted by or on Behalf of Public School Boards From 1981 to 1983 (Based on Notice of Final Determination, May of Appropriate Year - Notes 1, 2)

	1981		1982		1983	
	$000	%	$000	%	$000	%
REVENUE SOURCES:						
1. Consolidated Revenue Fund						
• Sh. Operating (3)	422,073	26.28	487,427	25.97	502,421	26.34
• Prov. Res. Progs. (4)	0	0.00	0	0.00	0	0.00
• Supp. Operating (5)	0	0.00	0	0.00	0	0.00
• Debt Service (6)	76,374	4.75	92,514	4.93	109,443	5.74
• Homeowner Grants	228,500	14.23	253,500	13.51	258,000	13.52
• Textbook Alloc. (7)	8,905	0.55	9,597	0.51	8,819	0.46
• Teacher Pensions (8)	83,700	5.21	112,000	5.97	109,198	5.72
Consolidated Rev. Total	819,551	51.02	955,038	50.89	987,881	51.79
2. Non-Residential Property Taxation						
• Sh. Operating	382,798	23.83	624,546	33.28	622,138	32.61
• Supplem. Operating	110,127	6.86	0	0.00	0	0.00
• Debt Service	28,122	1.75	37,908	2.02	40,519	2.12
• Non-Shar. Cap.	9,249	0.58	0	0.00	0	0.00
Non-Resid. Prop. Tax Total	530,296	33.01	662,455	35.30	662,658	34.74
3. Residential Property Taxation						
• Sh. Operating	298,502	18.58	304,357	16.22	378,303	19.83
• Supplem. Operating	84,974	5.29	83,453	4.45	4,873	0.26
• Debt Service	24,441	1.52	26,009	1.39	23,973	1.26
• Non-Shar. Cap.	6,913	0.43	17,209	0.92	16,660	0.87
LESS Homeowner Grant	(228,500)	-14.23	(253,500)	-13.51	(258,000)	-13.52
Resid. Property Tax Total	186,330	11.60	177,528	9.46	165,809	8.69
SUB-TOTAL: Net Expend. Budgeted by or on Behalf of School Boards	1,536,178	95.64	1,795,020	95.65	1,816,348	95.22
4. Miscellaneous Revenue and Surpluses						
• Sh. Operating (9)	20,081	1.25	87,680	4.67	96,035	5.03
• Supplem. Operating	50,829	3.16	0	0.00	0	0.00
• Debt Service	(842)	-0.05	(6,062)	-0.32	(4,793)	-0.25
Misc. Revenue Total	70,067	4.36	81,619	4.35	91,242	4.78
TOTAL: Gross Expend. Budgeted by or on Behalf of School Boards	1,606,245	100.00	1,876,639	100.00	1,907,590	100.00

See notes following Table 2.23.

Table 2.23

Source and Application of Revenue Budgeted by or on Behalf of Public School Boards From 1984 to 1986/87 (Based on Notice of Final Determination, May of Appropriate Year - Note 1)

	1984		1985/86		1986/87	
	$000	%	$000	%	$000	%
REVENUE SOURCES:						
1. Consolidated Revenue Fund						
• Sh. Operating (3)	510,226	26.66	570,351	30.83	674,208	34.57
• Prov. Res. Progs. (4)	0	0.00	0	0.00	0	0.00
• Supp. Operating (5)	0	0.00	0	0.00	207	0.01
• Debt Service (6)	107,341	5.61	106,966	5.78	106,537	5.46
• Homeowner Grants	261,500	13.67	272,000	14.70	280,596	14.39
• Textbook Alloc. (7)	9,145	0.48	10,700	0.58	14,869	0.76
• Teacher Pensions (8)	105,845	5.53	90,816	4.91	88,807	4.55
Consolidated Rev. Total	994,057	51.95	1,050,833	56.80	1,165,223	59.74
2. Non-Residential Property Taxation						
• Sh. Operating	623,148	32.56	520,932	28.16	429,997	22.05
• Supplem. Operating	0	0.00	0	0.00	0	0.00
• Debt Service	39,510	2.06	36,219	1.96	36,244	1.86
• Non-Shar. Cap.		0.00	0	0.00	0	0.00
Non-Resid. Prop. Tax Total	662,658	34.63	557,150	30.12	466,241	23.91
3. Residential Property Taxation						
• Sh. Operating	374,251	19.56	395,964	21.40	399,218	20.47
• Supplem. Operating	4,536	0.24	760	0.04	66,335	3.40
• Debt Service	24,061	1.26	24,386	1.32	24,500	1.26
• Non-Shar. Cap.	16,174	0.85	17,084	0.92	16,806	0.86
LESS Homeowner Grant	(261,500)	-13.67	(272,000)	-14.70	(280,596)	-14.39
Resid. Property Tax Total	157,522	8.23	166,194	8.98	226,262	11.60
SUB-TOTAL: Net Expend. Budgeted by or on Behalf of School Boards	1,814,237	94.81	1,774,177	95.90	1,857,726	95.25
4. Miscellaneous Revenue and Surpluses						
• Sh. Operating (9)	47,049	2.46	41,200	2.23	58,841	3.02
• Supplem. Operating	42,198	2.21	34,682	1.87	32,485	1.67
• Debt Service	10,108	0.53	0	0.00	1,329	0.07
Misc. Revenue Total	99,355	5.19	75,882	4.10	92,655	4.75
TOTAL: Gross Expend. Budgeted by or on Behalf of School Boards	1,913,592	100.00	1,850,059	100.00	1,950,381	100.00

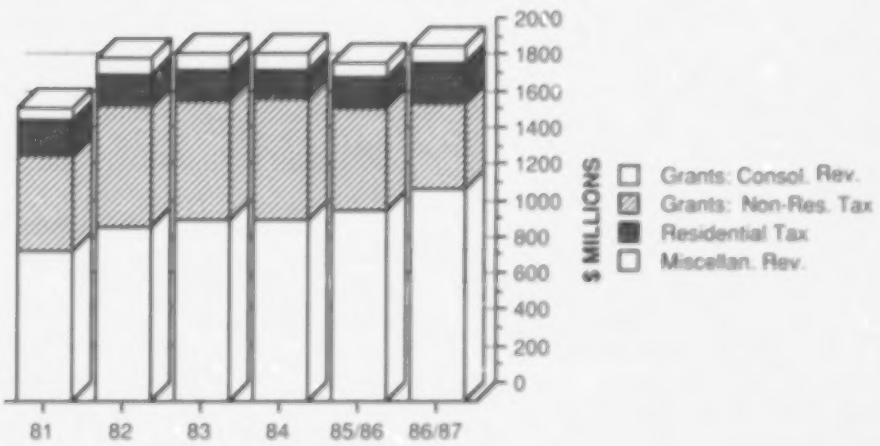
See notes following this Table.

NOTES:
1. Data are as of May Notices of Final Determinations. Beginning in 1986/87, amounts may have been adjusted to reflect actual enrolments or other variables.
2. These figures include the July reduction of $37.5 million in 1982 operating grants to school districts.
3. Until 1984, operating included budget sections "A" through "G." This means that "Non-Shareable Operating" is included. Grants to Operating in 1982 include a special statutory appropriation of $75 million.
4. Prior to 1987/88, amounts for Provincial Resource Programs (PRP) were included in grants to shareable operating amounts. For that reason, beginning in 1987/88, PRP is shown as a separate grant from the Consolidated Revenue Fund.
5. Consolidated Revenue Fund amounts shown for supplementary operating are special aid grants.
6. Until 1984, debt service includes sections "H" and "J." This means that "Non-Shareable Capital" is included.
7. Textbook Allocations, determined by the Textbook Branch, apply to the school year.
8. Prior to 1983, teacher pensions were not included in school district gross budgets. The figures for pensions for each year are obtained from the Estimates for the fiscal year beginning in the school budget year. Beginning in 1984, teachers' pension amounts are from the Composite Final Determination.
9. The split of Miscellaneous Revenue between supplementary operating and shareable operating is not available for 1982 and 1983.

Source: Schools Research and Analysis.

Figure 2.6

Sources of Revenue for Amounts Budgeted by or on behalf of Public School Boards, including Pensions and Textbooks (1981 - 1986/87)



Source: Schools Research and Analysis

Per Pupil Amounts

Table 2.24 shows per pupil amounts budgeted by or on behalf of schools boards since 1981.

Table 2.24

Amount Budgeted by or on Behalf of School Boards per Pupil (1981 - 1986/87)

	Per Pupil School Board Budgets			Per Pupil Amounts Budgeted on Behalf of School Boards		
	Gross Operating Budget	Debt Service & Capital	Gross Total Budget	Pension	Texts	Gross Total Amount per Pupil
1981	2,783	293	3,076	170	18	3,264
1982	3,269	345	3,614	231	20	3,865
1983	3,326	385	3,711	226	18	3,956
1984	3,346	412	3,758	221	19	3,999
1985 (6 months)	1,967	203	2,170	115	13	2,298
1985/86	3,343	395	3,738	194	23	3,955
1986/87	3,557	397	3,954	190	32	4,176
% Changes	27.81%	35.51%	28.54%	11.78%	75.92%	27.93%

NOTE: Per pupil costs for 1985 (6 months) and earlier are based on the previous September enrolment. For 1985/86 and 1986/87, they are based on the current year's September enrolment.

Source: Schools Operations and Schools Research and Analysis.

Figure 2.7 displays data supplied by the Council of Ministers of Education, Canada, and indicates how per-pupil costs in British Columbia compare to other Provinces. While this figure displays gross operating amounts per pupil, it excludes amounts for textbooks prior to 1981. However, since textbook amounts are a relatively small proportion of total budgets, the figure provides a useful comparison. In 1981, British Columbia was ranked third highest in operating costs per pupil. In 1986, the Province ranked sixth with school boards in Alberta, Saskatchewan, and Manitoba joining those in Ontario and Quebec in budgeting more per pupil than those in British Columbia.

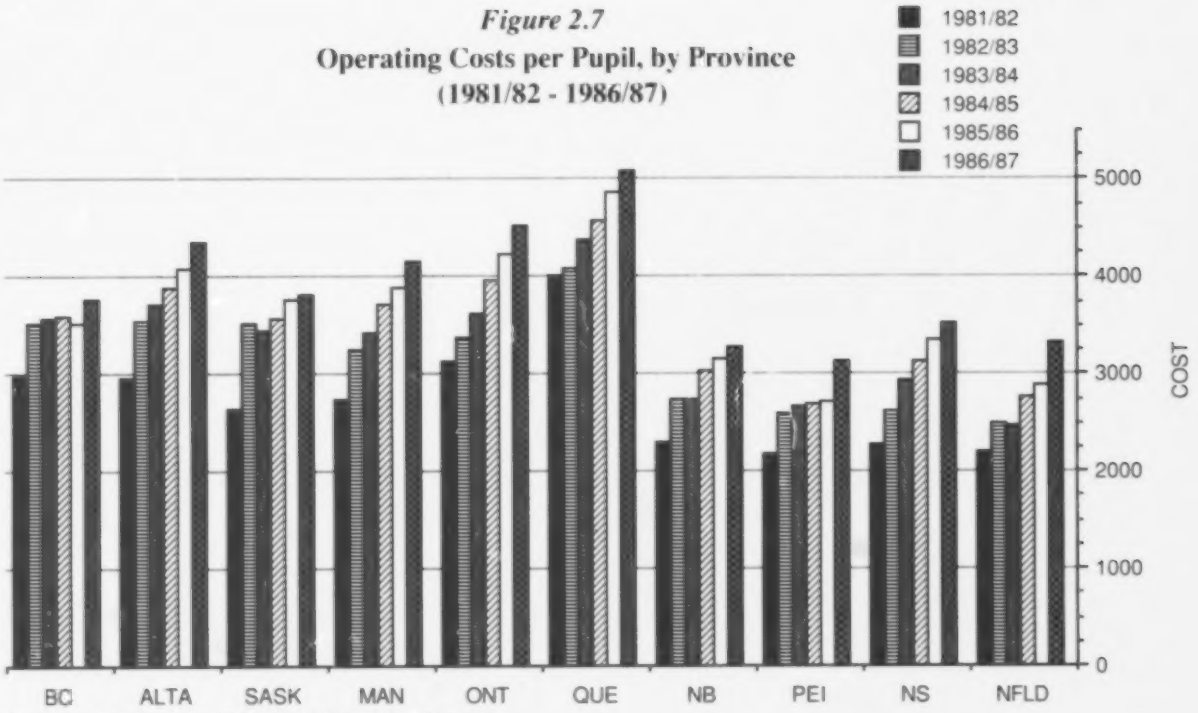
While a cost per pupil is often used as an indicator of quality, it is unsatisfactory to the extent it is only assumed to lead to desired outcomes.

Outcome measures are very difficult to obtain, but for illustrative purposes, Figure 2.8 shows direct operating expeditures per pupil in each province plotted against the percentage of the appropriate age cohort who are high school graduates (i.e., 18 year olds in most provinces, 17 year olds in Quebec where students graduate in Grade 11).

Different graduation requirements make it necessary to interpret the figure with some caution, but it does suggest that resource inputs and outcomes need to be considered in conjunction with one another.

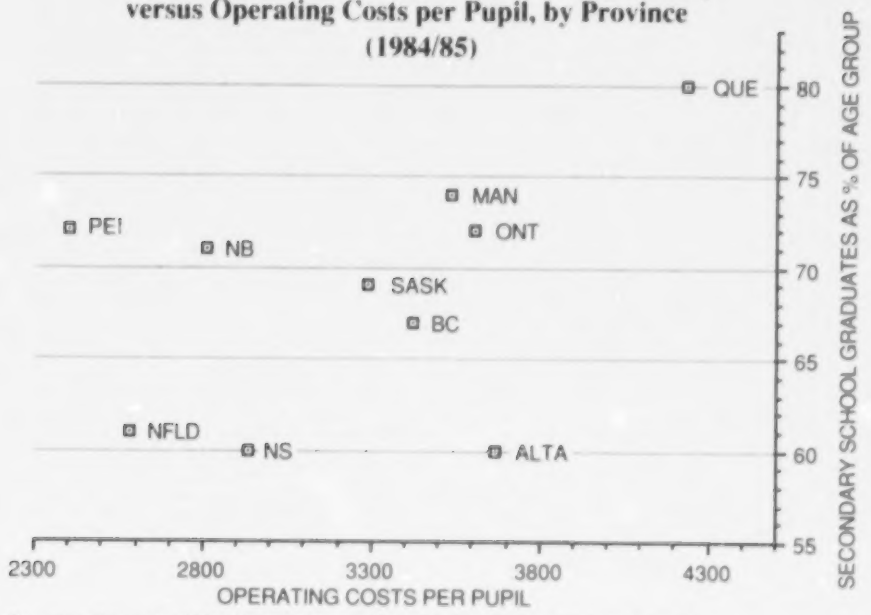
Figure 2.7

Operating Costs per Pupil, by Province
(1981/82 - 1986/87)



Source: Council of Ministers of Education, Canada

Figure 2.8
Secondary School Graduates as a % of Age Group versus Operating Costs per Pupil, by Province (1984/85)



Source: Council of Ministers of Education, Canada and Statistics Canada

Residential Taxation Issues

The residential property taxes requisitioned in any calendar year reflect the two school years with which the calendar year overlaps. The 1987 tax year, for example, raises taxes to fund part of the 1986/87 school year and part of the 1987/88 school year. Gross taxes are those amounts determined prior to the application of the provincial Home Owner Grant (H.O.G.). Net taxes are those actually requisitioned, after the application of the H.O.G.

There are two major issues related to residential property tax. The first is the size of taxes to be requisitioned for both shareable (provincial benchmark program) and supplementary (locally determined) amounts. While taxes for shareable amounts reflect the relative size of the tax base in each district, taxes for supplementary purposes reflect only the available tax base in each district. Therefore, districts with a large assessment base may more easily requisition such taxes.

The second issue relates to the variation in school taxes paid by homeowners. The Province uses actual school tax paid as its measure of tax equity. Table 2.25 shows the estimated ranges and the taxes paid by the owner of an average home, since 1985, for shareable and supplementary operating amounts.

Table 2.25

Estimated School Taxes Paid by the Owner of an Average Home, and the Range of Gross School Taxes, for Shareable and Supplementary Amounts (1985 - 1987)[1]

Year	Shareable Operating Amount			Supplementary Operating Amount		
	Total	Maximum	Minimum	Total	Maximum	Minimum (2)
1985	$355	$579	$167	$ 3	$ 46	-$35
1986	$352	$572	$111	$27	$ 84	-$15
1987	$353	$567	$ 92	$80	$164	-$38

NOTE: 1. Estimated gross taxes are prior to the application of the Home Owner Grant.
2. In some districts, miscellaneous revenue applied towards the supplementary amount exceeded the total supplementary operating amount.

Source: School Research and Analysis.

Further, Table 2.26 shows the estimated net school taxes paid by the owner of an average home, and the range of these taxes, since 1981. These are the estimated actual school taxes to be paid in support of the gross total amount.

Table 2.26

Estimated Net School Taxes Paid by the Owner of an Average Home (1981 - 1987)

Year	Average	Minimum	Maximum
1981	$29	-$261	$648
1982	$43	-$243	$341
1983	$19	-$240	$297
1984	$ 8	-$372	$257
1985	$15	-$193	$250
1986	$35	-$277	$282
1987	$ 9	-$262	$364

NOTE: Net school taxes are those paid after the application of the Home Owner Grant. The average home is defined as the home in the Province with the median value, that is, 50% of homeowners pay more school tax, 50% pay less. Negative amounts indicate a credit from the Home Owner Grant towards other property taxes. Minimum or maximum is net school tax paid by the owner of an average home in any school district, not the minimum or maximum paid by all homeowners.

Source: Schools Research and Analysis.

The application of the provincial Home Owner Grant reduces the actual property taxes paid for qualifying homeowners. The grant ($380 for most homeowners, $630 for seniors) applies first to school taxes, but "excess" amounts may be applied against local taxes. The Province's minimum property tax program ensures all homeowners make some contribution to education or municipal costs through property taxation.

Based on 1987 values, if a homeowner's gross property taxes are below $350, the homeowner pays that amount. If those taxes are between $350 and $730, the homeowner pays $350, with the appropriate portion of the Home Owner Grant making up the difference. If taxes are above $730, the homeowner pays the total less $350.

For senior citizens, if the combined taxes are less than $100, the senior homeowner pays that amount. If taxes are between $100 and $730, the homeowner pays $100. If taxes are above $730, the senior homeowner will pay the taxes less $630.

Non-Residential Property Taxation

The non-residential property tax base is used by the Province for school taxation. The government establishes the tax rate for each class of non-residential property in each district. This enables the Province to dispense the revenue equitably to all districts to control the level of taxation and to equalize taxes for non-residential property. This revenue is distributed as part of provincial grants.

Beginning with the 1985 taxation year, the government began to the phase out school property taxes on machinery and equipment and to reduce such taxes on industrial and business properties as sources of tax revenue for school purposes. These reductions were completed for the 1987 taxation year. All reductions have been offset by corresponding increases in direct grants to school districts from the Consolidated Revenue Fund. Tables 2.22 and 2.23 above, show the changing relationship between provincial grants from the Consolidated Revenue Fund and non-residential property taxes.

The Accounting System - Reporting Expenditures

Following each school year, boards are required to submit audited financial statements to detail the expenditure they have made. They are in the same program structure as the fiscal frameworks and budgets. The reports allow officials from school districts and the Ministry of Education to review expenditure patterns in order to determine the source of costs in the education system.

Special Programs

Special programs are a specific area of interest to the Ministry. Table 2.27 shows special programs enrolments and shareable amounts, on a total and per-pupil basis for 1985/86 and 1986/87. The Funding and Placement Program, unlike other special programs, is 100% funded by the government. The Ministry spent $220 million in 1986/87.

Table 2.27

Special Programs Enrolments and Funding
(1985/86 and 1986/87)

Program	1985/86			1986/87		
	Enrolment	Funding	Per Pupil $	Enrolment	Funding	Per Pupil $
Trainable Mentally Handicapped	1,219	10,982,931	9,010	1,254	10,584,623	8,441
Severe/Profound Handicapped	357	3,024,755	8,473	368	3,578,353	9,724
Physically Handicapped	386	3,831,591	9,926	425	3,870,597	9,107
Visually Impaired	370	4,198,958	11,349	402	3,743,942	9,313
Hearing Impaired	692	5,794,975	8,374	797	6,161,095	7,730
Autistic	154	1,995,532	12,958	150	1,827,317	12,182
Severe Learning Disabled (FTE)	5,523	16,678,204	3,020	6,637	23,733,500	3,576
Educable Mentally Handicapped (FTE)	4,100	17,751,921	4,330	4,108	18,518,474	4,508
Severe Behaviour (FTE)	2,534	8,738,709	3,449	2,573	11,470,683	4,458
Rehabilitation (FTE)	3,101	11,907,539	3,840	3,161	13,679,457	4,328
English as a Second Language	15,673	33,534,041	2,140	15,705	34,660,917	2,207
Indian Education	15,342	36,658,230	2,389	15,882	38,538,810	2,427
Gifted (FTE)	8,986	21,646,424	2,409	9,161	20,791,573	2,270
Other Special Programs Services*	N/A	19,021,256	N/A	N/A	19,318,133	N/A
SUB-TOTAL: Cost-Shared Programs	58,437	195,765,066	3,025	60,623	210,477,474	3,153
Funding and Placement Program**	Variable	7,615,715	N/A	Variable	9,635,391	N/A
TOTAL: Special Programs	N/A	203,380,781	N/A	N/A	220,112,865	N/A

* Other services include hospital programs, homebound programs, identification and planning, and special health services.

** The Funding and Placement Program includes containment centres, Jericho Hill School, provincial resource programs, and district-to-district placements and is funded 100% by the government. Students do not necessarily attend such programs for a full year.

Source: Schools Research and Analysis.

Fund for Excellence in Education

In 1986, a fund dedicated to excellence in education was established by the *Education Excellence Appropriation Act*. These funds were distributed among school boards and post-secondary institutions in the Province. The total allocated to date for public schools is $153.61 million.

Of the amount available for public school education, $48.1 million has been allocated for special projects developed by school boards to improve the quality of education. Boards were requested to submit proposals for projects to: increase access to computers and related technology; improve the quality of in-service training and pre-service training for teachers; upgrade or replace instructional equipment; and make more effective use of existing educational resources.

In the 1986/87 school year a total of $31.9 million was allocated for such projects. A further $16.2 million has been allocated on a per pupil basis. School boards have been given the option of continuing those projects established in 1986/87, or of developing other projects which will not result in increasing future operating costs in the district. In the 1987/88 school year, boards will be required to submit a report, outlining the nature of the projects being funded.

Funds from the "Excellence in Education" appropriation have also been allocated to supplement operating grants to school districts, in order to support enhanced levels of service, salary increases, special education, additional textbooks, and various other initiatives designed to improve the quality of education. A summary of all allocations to date is contained in Table 2.28.

Table 2.28

Fund for Excellence in Education Approved Allocations as at June 30, 1987

Application	Allocation ($ Millions)	
School District Special Projects		
Computer Technology	19.40	
Equipment	2.60	
Teacher Training	4.50	
Program Effectiveness	5.40	
Per Capita Allocation	16.20	
		48.10
School District Operating Grants		85.86
Additional Textbooks		13.15
Oriental Language Program		3.50
Small Secondary School Projects		0.66
Family Life Program		0.83
Knowledge Network		0.56
Child Abuse Prevention Program		0.50
Special Education - Hearing Equipment		0.45
Total Allocations		153.61

NOTE: The amount allocated to June 30, 1987 includes some special projects, operating grants, and other funds which will be disbursed in the 1987/88 school year.

Facilities Management

In conjunction with school districts, the Schools Facilities Branch of the Ministry produces a capital budget intended to:

- provide for equipment and transportation requirements of the provincial school system;
- maintain existing facilities and construct new buildings as required;
- correct unsafe conditions and/or prevent deterioration of a facility.

Table 2.29 details the number of schools operating in British Columbia since 1982/83. Due to the introduction of the new Financial Management System in 1983 which significantly altered the budget reporting structure, it is difficult to provide historical comparisons of the costs. In the 1986 calendar year, the cost of operating and maintaining these schools was $262.5 million.

Table 2.29

Number of Schools, by Grade Configuration

(1982/83 - 1986/87)

Year	Elem (K-7)	El-Jr (K-10)	El-Sec (K-12)	Jr Sec (8-10)	Sec (8-12)	Sr Sec (11-12)	Sub. Total	Other Progs.*	Total
1982/83	1,201	70	40	95	170	22	1,598	15	1,613
1983/84	1,200	65	41	88	171	18	1,583	18	1,601
1984/85	1,156	68	34	87	176	15	1,536	28	1,564
1985/86	1,147	68	30	88	171	15	1,519	29	1,548
1986/87	1,137	71	26	84	170	18	1,506	34	1,540

* "Other Programs" include rehabilitation and containment centres, alternate facilities, etc. The number of schools may be different, from that in previous reports due to a correction in the reporting process.

Source: Schools Research and Analysis.

The declining number of schools reflects to some extent changes in enrolment over the period shown. It is not possible to manage capital facilities so that all existing capacity is fully utilized. Because of enrolment declines, schools in some districts are presently under-capacity. However, in areas where the school-age population is expanding, it is necessary to construct new schools even though, on a provincial basis, excess capacity exists. In these growing districts, schools are usually very close to full capacity. Table 2.30 shows school enrolments and capacities.

Table 2.30

School Enrolments and Capacities

(1982/83 - 1986/87)

Year	Operating Capacity *	Headcount Enrolment	Enrolment As a % Of Capacity
1982/83	653,950	500,336	76.5
1983/84	661,560	497,312	75.1
1984/85	668,230	491,085	73.5
1985/86	670,300	486,692	72.6
1986/87	668,848	486,221	72.7

* Operating capacities are defined by current Ministry standards and reflect allowances for secondary time-tabling difficulties.

Source: Schools Facilities.

The Ministry of Education publishes a facilities building manual to provide guidance to school boards and others engaged in the design and development of school facilities. The manual describes the area standards established for space in school facilities, provides guidelines for the design of all spaces in schools and technical guidelines for application to schools facilities.

Capital Construction

Capital works for 1986/87, together with capital projects approved in prior years, resulted in an annual debt service cost of $168.6 million in 1986/87.

During the fiscal year $5 million in capital funding was approved for renovations to existing school facilities to provide access for the handicapped. This is an on-going program that will see all facilities accessible to the handicapped in the very near future.

Table 2.31 shows schools' capital budgets, by category, since 1981/82.

Table 2.31

Schools Board Capital Budgets

(1981/82 - 1986/87)

	VALUE OF PROJECTS FOR: ($ MILLIONS)					
Year	New Space	Equip.*	Bus Re-Replace.	Minor Renov.	Emergency	Total
1981/82	187.9	14.6	3.9	5.9	7.4	219.7
1982/83	111.7	11.0	3.1	6.8	12.5	145.5
1983/84	9.4	2.5	2.8	4.1	1.1	20.0
1984/85	31.9	1.9	3.4	4.5	11.0	52.6
1985/86	31.5	0.0	3.6	3.8	14.5	53.5
1986/87	41.6	0.0	4.8	6.8	23.2	76.4

* Equipment refers to special allocations only.

Source: Schools Facilities.

Staffing and Pupil-Teacher Ratios

Pupil-Teacher Ratios

One measure of service for public school education is the pupil-teacher ratio (PTR). Table 2.32 shows provincial enrolments, teachers employed and pupil-teacher ratios (PTR) since September 1975. The teaching force generally increased from September 1975 through September 1981 despite declining enrolments. Since then, the teaching force declined until September 1986 when an increase occurred.

Table 2.32

Full-Time Equivalent Enrolments, Teachers and Pupil-Teacher Ratios (1975/76 - 1986/87)

	Headcount Enrolment	FTE Enrolment	FTE Teachers	Pupil-Teacher Ratios
Sept. 1975	542,688	525,344.00	27,454.60	19.14
Sept. 1976	536,192	518,425.00	27,858.70	18.61
Sept. 1977	527,771	510,642.50	28,181.40	18.12
Sept. 1978	516,967	500,198.00	28,086.50	17.81
Sept. 1979	511,671	494,522.00	27,861.00	17.75
Sept. 1980	509,801	492,053.50	28,437.90	17.30
Sept. 1981	503,327	485,560.50	29,156.90	16.65
Sept. 1982	500,336	482,255.00	28,183.50	17.11
Sept. 1983	497,312	478,543.50	28,023.63	17.08
Sept. 1984	491,085	472,264.14	26,643.12	17.73
Sept. 1985	486,692	467,766.98	25,915.43	18.05
Sept. 1986	486,221	467,053.39	26,366.49	17.71

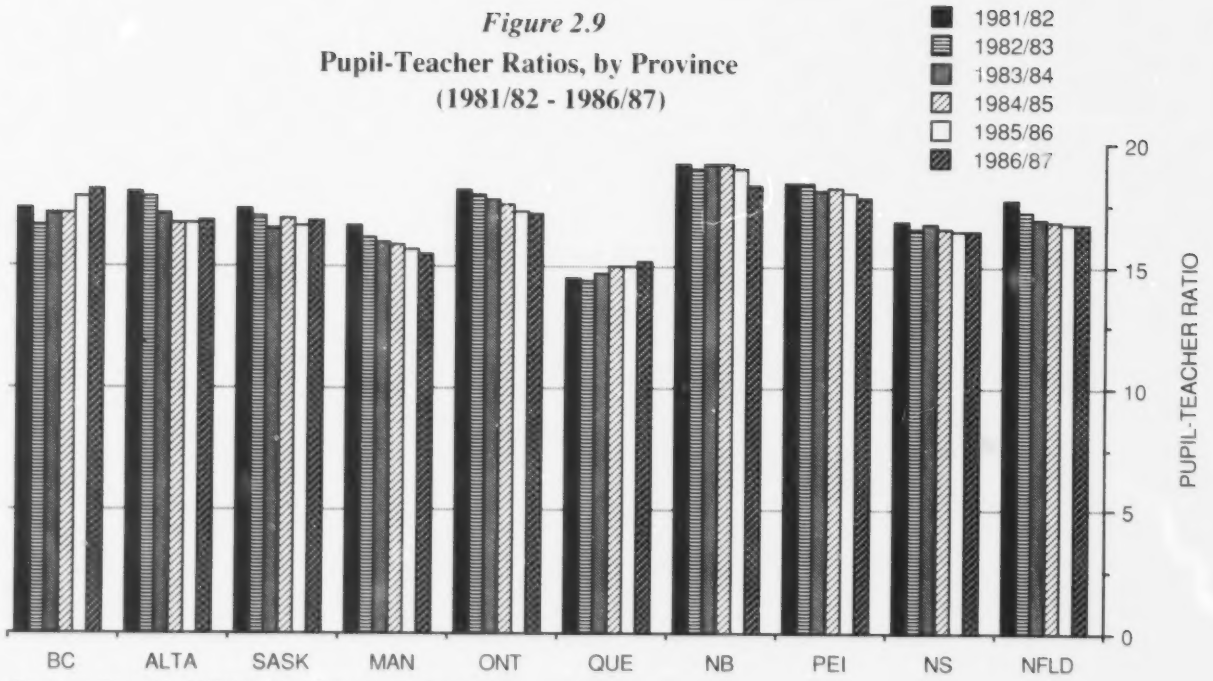
Source: Schools Research and Analysis.

Using data supplied by the Council of Ministers of Education, Canada, Figure 2.9 provides an inter-provincial comparison of recent shifts in PTR. British Columbia's PTR has exhibited an increasing trend since 1981, while all other Provinces, except Quebec, have had declining pupil-teacher ratios. The result is that our PTR of 17.71 (September 1986) is ranked third highest, exceeded by New Brunswick and Prince Edward Island. In 1981, British Columbia ranked third lowest.

Figure 2.10 shows PTR in each province plotted against the percentage of each province's 18 year olds, or the appropriate age cohort, who are high school graduates. As with Figure 2.8 above, it suggests that resource inputs and outputs need to be considered in conjunction with one another.

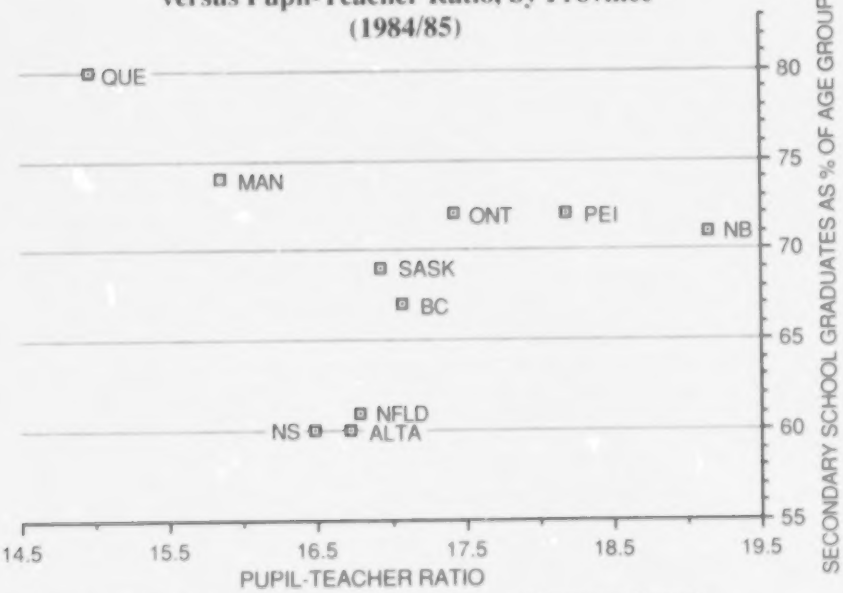
Figure 2.9

Pupil-Teacher Ratios, by Province
(1981/82 - 1986/87)



Source: Council of Ministers of Education, Canada

Figure 2.10
Secondary School Graduates as a % of Age Group versus Pupil-Teacher Ratio, by Province (1984/85)



Source: Council of Ministers of Education, Canada and Statistics Canada

Average Class Size

Another measure of resource allocation in the student-teacher relationship is class size, that is, the number of students actually in a classroom. While average class size does not show the wide range of class sizes, it does provide a constant measure of this relationship over time.

Table 2.33 shows average elementary and secondary class sizes since 1976/77. The decline in the number of teachers has not led to corresponding increases in average class size. It should be noted that September 1984 was the first year in which special education classes were excluded from calculation of average secondary class size. As a result, a sizeable increase occurred in that year.

Table 2.33

Average Elementary and Secondary Class Size
(1976/77 - 1986/87)

	Average Elementary Class Size	Average Secondary Class Size
1976/77	24.10	24.00
1977/78	23.50	23.70
1978/79	23.40	23.00
1979/80	23.10	23.30
1980/81	22.80	22.90
1981/82	23.70	22.40
1982/83	23.90	23.10
1983/84	24.00	23.60
1984/85	23.60	24.46
1985/86	24.00	25.10
1986/87	23.70	24.70

NOTE: Beginning in September 1984, average secondary class sizes excluded special education enrolments. This serves to increase the average size relative to previous years.
Source: Schools Research and Analysis.

Teaching Staff Time Allocation

Table 2.34 shows the number and percentage of teachers assigned to principalships or vice-principalships, to board office, and classroom teaching. The September 1986 percentage of 8.8% stood at about three quarters of its 1981 peak of 12.3% and was the lowest it has been since 1975. In the last two years, the number of teachers assigned to these roles has decreased dramatically. It is difficult to determine if this is a result of changing definitions or a realignment of priorities by school boards.

Table 2.34
Teachers in Administrative Roles
(1975/76 - 1986/87)

	Teachers in Administrative Roles				
	Prins. and Vice-Pr	Board Office	Total	FTE Teachers	% of Total
1975	1,787.00	782.80	2,569.80	27,454.60	9.4%
1976	1,910.00	799.20	2,709.20	27,858.70	9.7%
1977	2,056.00	828.60	2,884.60	28,181.40	10.2%
1978	2,066.50	963.90	3,030.40	28,086.50	10.8%
1979	2,089.80	963.10	3,052.90	27,861.00	11.0%
1980	2,130.00	1,180.80	3,310.80	28,437.90	11.6%
1981	2,252.30	1,341.10	3,593.40	29,156.90	12.3%
1982	2,280.60	983.40	3,264.00	28,183.50	11.6%
1983	2,214.50	1,027.50	3,242.00	28,023.63	11.6%
1984	2,067.20	354.40	2,421.60	26,643.12	9.1%
1985	2,014.10	341.20	2,355.30	25,915.43	9.1%
1986	2,008.50	304.20	2,312.70	26,366.49	8.8%

NOTE: Until September 1983, board office teachers included district-wide instructors and district-wide supervisory staff. Since September 1984, board office teachers include all teachers reported in Function 4 (District Administration and Instructional Support Services). This includes all teachers defined as types 1 through 7 (i.e., Directors or Supervisors of Instruction, Teacher Consultants, Coordinators, Helping Teachers, Other Instructional Support, or Professional Staff-Teachers). It may be that the change in definitions has influenced these reported numbers more than actual staff reassignments.

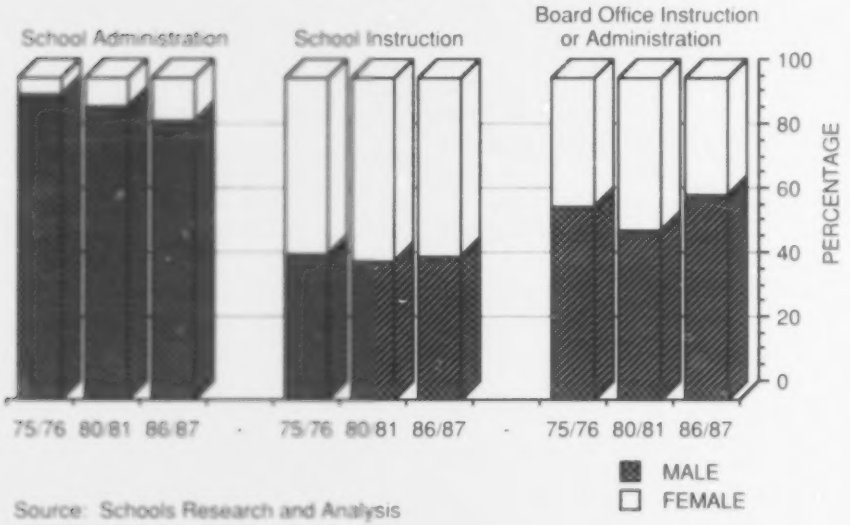
Source: Miscellaneous salary and FTE teacher reports (eg., Sept. 1985 = Form 2003), Schools Research and Analysis.

Figure 2.11 shows the number of men and women in administrative and teaching roles in 1975/76, 1980/81, and 1986/87. The number of women in school administration (principals and vice-principals) is small but over the past ten years has grown from 5.1% to 13.5%. Women are still the majority (55.7%) of the school-based teaching force.

Table 2.35 provides a detailed breakdown of the allocation of teachers' time by instructional, administrative and related functions.

Figure 2.11

Percentage Distribution of Teachers by Gender (1975/76, 1980/81, and 1986/87)



Source: Schools Research and Analysis

Table 2.35

Allocation of Teachers' Time (1985/86 and 1986/87)

Function	1985/86 % of Total FTE Teacher Time	1986/87 % of Total FTE Teacher Time
GRADES K-12 INSTRUCTION		
Teaching "Regular" Classes	69.5%	72.7%
Special Education	9.5%	10.6%
School-Based Administration	5.5%	5.0%
Learning Assistance	4.0%	4.1%
Library	3.3%	3.3%
Counselling	2.2%	2.3%
Other K-12 Activities	1.5%	0.8%
Preparation Time	3.6%	N/A
SUB-TOTAL	99.1%	98.8%
Board Office Administration	.9%	1.0%
Health Services	.2%	N/A
Unknown	-0.2%	0.2%
TOTAL	100.0%	100.0%

Source: Forms 1515, 1516 and 2005 (Sept. 30, 1985 and 1986). Schools Research and Analysis.

Teachers' Salaries

Table 2.36 shows provincial average salaries of public school teachers since September 1975.

Table 2.36

Provincial Average Public School Teachers' Salaries
(including All Allowances)
(1975/76 - 1986/87)

Sept.	Basic Salary	Allowances	Total Salary	Estimated Stat. Benefit and Pens.	Total Salary and Benefit and Pens. Costs
1975	N/A	N/A	16,157	2,384	18,541
1976	N/A	N/A	17,861	2,635	20,496
1977	N/A	N/A	19,548	2,884	22,432
1978	N/A	N/A	21,039	3,104	24,143
1979	N/A	N/A	22,915	3,381	26,296
1980	N/A	N/A	25,233	3,723	28,956
1981	27,741	775	28,516	4,762	33,278
1982	33,232	989	34,221	4,991	39,212
1983	34,821	1,055	35,876	5,006	40,882
1984	35,366	1,086	36,452	4,758	41,210
1985	36,168	1,087	37,255	5,127	42,382
1986	37,031	1,110	38,141	5,993	44,134

NOTE: Total Salaries do not include fringe benefits. Allowances includes administrative isolation and other adjustment. Teachers include all certified teachers except superintendents and assistant superintendents.

Source: Salary data based on historical reported information. Benefit costs estimated by Schools Research and Analysis.

Table 2.37 shows average salaries for teachers at various levels of experience and academic qualifications for 1981, 1985/86, and 1986/87.

Table 2.37
Teacher Salary Information
(1981, 1985/86, and 1986/87)

	1981 (1)	1985/86	1986/87
Average Teacher Salary (including all allowances)	$28,516	$37,255	$38,141
Average Salary of Beginning Teacher with 5 Yrs. Training and No Experience	$21,222	$25,983	$25,882
% of Teaching Force at this Salary	2.26%	0.85%	1.43%
Average Basic Salary of Teacher with 5 Yrs. Training and Minimum 10 Yrs. Experience	$32,349	$39,307	$40,265
% of Teaching Force at this Salary	20.49%	28.08%	29.24%
Average Basic Salary of Teacher with a Masters Degree and Minimum 10 Yrs. Experience	$35,367	$43,144	$44,185
% of Teaching Force at this Salary(2)	10.39%	16.86%	17.25%

NOTE: 1. All 1981 teacher data are as of September 1980 except for teacher salaries, which are as of September 1981.
2. Teacher qualification files were updated for the 1986/87 school year.

Source: Schools Research and Analysis.

Table 2.38 indicates average teacher salary growth across Canada over the period 1980/81 to 1986/87. B.C.'s rate of salary growth since 1980/81 is ranked eighth, surpassed by all Provinces except Quebec and New Brunswick. British Columbia's average teacher salaries in 1986/87 were ranked fourth, and were surpassed by Alberta, Ontario, and Nova Scotia. In 1985/86, B.C. salaries were the third highest.

Table 2.38
Inter-Provincial Comparison of Average Teacher Salaries
(1980/81 - 1986/87)

	B.C.	Alta.	Sask.	Man.	Ont.	Que.	N.B.	P.E.I.	N.S.	Nfld.
80/81	25,223	22,261	21,556	21,263	27,405	25,685	24,207	20,577	23,896	21,681
81/82	28,516	24,278	23,669	23,832	30,890	29,843	27,264	22,419	27,508	21,966
82/83	34,221	27,287	26,741	28,157	34,453	31,287	30,840	25,787	30,251	27,499
83/84	35,876	33,461	30,247	31,834	36,581	31,880	31,221	28,881	33,949	29,413
84/85	36,452	35,489	32,674	35,518	38,673	33,018	33,247	29,497	35,288	31,495
85/86	37,255	36,640	34,200	36,994	40,455	34,139	33,589	30,730	38,143	32,421
86/87	38,141	39,361	35,910	37,937	42,227	35,588	33,231	34,004	39,217	33,641
% Change Since 80/81	51.2%	76.8%	66.6%	78.4%	54.1%	38.6%	37.3%	65.25%	64.1%	55.7%

Source: Council of Ministers of Education, Canada

PUBLIC EXPECTATIONS

While most districts have formal or informal means of ascertaining the degree of satisfaction accorded the local school system by residents of the district, to date the Province has not attempted to collect that information from districts or from the public at large. The degree of public satisfaction with the school system has not been measured at the provincial level since the ***Let's Talk About Schools*** study of 1984-85.

Those who took part in the "Let's Talk About Schools" process indicated a wide consensus in the Province as to what schooling should entail, including pursuit of the goals and attributes which form the structure for this report.

Quality was consistently indicated as the major area of concern with schooling. There was general agreement that schools are not doing as good a job as they should. Many residents called for greater funding, but most were unwilling to pay higher taxes. It was widely believed that the schools and students should be evaluated more frequently according to higher standards.

In the future, the Ministry intends to collect data from districts concerning the level of public satisfaction with schools.

INDEPENDENT SCHOOLS

Government support grants to qualifying independent schools were first provided in 1977 with the passage of the *Independent School Support Act*.

Independent schools who wish to apply for funding and who conform to the Act's requirements are evaluated by the Inspector of Independent Schools. Present legislation regarding independent schools is contained in the *School Support (Independent) Act*. To become eligibile for government grants a school authority must first incorporate as a nonprofit society under the *Society Act* and, following incorporation, operate the school successfully for three consecutive years.

The *School Support (Independent) Act* provides for two levels of classification: Group 1 and Group 2. To qualify for a grant, Group 1 schools must satisfy the Inspector of Independent Schools that the teaching facility is adequate and that no program is in existence or proposed that would promote or foster doctrines of racial or ethnic superiority, religious intolerance or persecution, or social change through violent action.

For Group 2 classification, the Inspector must be satisfied that, in addition to meeting the listed criteria for Group 1 schools, a school is providing curriculum offerings that meet instructional time requirements in course subjects, as determined by the Minister of Education. Group 2 schools also must participate in provincial assessment and examination programs, provide satisfactory pupil testing, ensure that teachers become certified, and agree to participate in an external evaluation process.

Regulations further stipulate that to be eligible to apply for Group 1 or Group 2 classification, a school must enrol a minimum of ten pupils in the case of an elementary school, or fifteen pupils for a secondary school. In addition, at least fifty percent of the enrolment must consist of qualifying students; that is, they must be Canadian citizens or landed immigrants whose parents are permanent British Columbia residents.

To receive British Columbia government support grants classified schools must file audited reports verifying the number of qualifying students in attendance. Specific grant amounts are determined each year by the Lieutenant Governor in Council (the Provincial Cabinet). In 1986/87 Group 1 schools received a per pupil grant of 9% of the per pupil operating cost of the public school district in which the independent schools were located, and Group 2 schools received 30%. The total grants approved, payable for the 1986/87 school year amounted to $31,108,365. This represented an increase of $4,635,399 over the previous year's total grant figure. Some of this increase was due to an increase in student enrolment, while some was due as a result of including, for the first time, provincial contributions to teacher pensions when calculating public school per pupil operating costs upon which independent school grants are based.

Group 2 schools employed 1,058.34 elementary and 742.13 secondary (full-time equivalent) teachers during the 1986/87 school year. Some 68% of those teachers are certified under the B.C. *School Act*, 28% hold independent school teaching certificates while the remaining 4% have either been issued permits to teach or are serving as volunteers.

The Inspector of Independent Schools appoints external evaluation committees comprised of former school superintendents and present independent school teachers and administrators to formally evaluate Group 2 schools when they first apply for funding and every 4-6 years thereafter. Schools are also visited, or "monitored," on a biennial basis by the Inspector, or a delegate, to review developments since the last formal evaluation took place.

Results from grade 12 provincial examinations and grades 4, 7 and 10 provincial assessment tests indicate that Group 2 independent school achievement compares favourably with provincial averages.

Table 2.39

Qualifying Pupils - Group 1 and Group 2 Independent Schools
(1977/78 - 1986/87)

Year	Gr.1	Q.P.	Gr.2	Q.P.	Total Gr. 1 & 2	Total Q.P.
1977/78	2	NA	99	NA	101	16,817.00
1978/79	2	453.50	105	17,367.00	107	17,820.50
1979/80	3	727.00	107	17,524.00	110	18,251.00
1980/81	3	469.50	112	19,176.00	115	19,645.50
1981/82	6	617.12	118	21,240.65	124	21,857.77
1982/83	9	704.55	121	21,771.20	130	22,475.75
1983/84	11	864.04	131	23,416.45	150	24,280.50
1984/85	14	1,073.27	151	24,759.94	165	25,833.21
1985/86	15	814.60	152	26,040.54	167	26,855.14
1986/87	12	673.65	169	27,204.24	181	27,877.89

The enrolment growth of qualifying pupils is projected to be 6% per year for each of the next four years.

Table 2.40

Independent School Grants
(1977/78 - 1986/87)

	Group 1	Group 2	Total
1977/78	N/A	N/A	8,402,275
1978/79	57,954	9,417,741	9,475,695
1979/80	130,503	10,532,897	10,663,400
1980/81	93,806	12,928,500	13,022,306
1981/82	146,435	16,785,807	16,932,242
1982/83	204,281	20,751,666	20,955,947
1983/84	260,223	22,796,202	23,056,425
1984/85	322,679	24,433,376	24,756,055
1985/86	247,561	26,225,405	26,472,966
1986/87	232,236	30,876,129	31,108,365

During the 1986/87 school year 12 Group 1 and 169 Group 2 schools with a total of 27,878 students (approximately 6% of the Province's total public school enrolment) qualified for support under the *School Support (Independent) Act*. This represented an increase of 14 schools and 1,023 qualifying students over the previous year's figure.

MINISTRY OPERATIONS

AND SUPPORT SERVICES

MINISTRY OPERATIONS AND SUPPORT SERVICES

INTRODUCTION

In 1986/87 support services to the education system, the public, and internally within the Ministry of Education, were provided by the Department of Management Operations. These included legislation, information, data processing, personnel, educational media, textbooks and other learning materials, accounting and other services. They were provided to assist in the achievement of the goals of the Ministry listed in the introduction of this report. A significant part of the Ministry's activities were at the behest of central agencies such as the Treasury Board Staff, Government Information Services, the Auditor General, Government Personnel Services Division, the Cabinet Secretariat and others.

OBJECTIVES RELATED TO HUMAN RESOURCES

1. To conduct reviews of organizational needs and manpower objectives as they are reflected in the areas of structure, personnel and systems, as directed by the Executive Committee. This committee consists of the Deputy Minister and the assistant deputy ministers of the departments in the Ministry, and the Inspector of Independent Schools.

2. To support the planning, development, implementation and appropriate utilization of human resources and of personnel administrative process within the Ministry.

3. To provide necessary support services and facilities to ensure the economical and adequate housing and internal administration of the Ministry.

The Ministry staffing level has remained almost constant at 379 over the past three years. In February, 1986 the Ministry of Advanced Education and Job Training was formed, incorporating 97 Post Secondary Department staff. To provide comparative annual figures Post Secondary staff have not been included in Figure 3.1 which illustrates changes over the last five years.

Staffing of regular positions in the Ministry increased from 13% in 1985/86 to 25% in 1986/87, indicating a significant staff turnover. The hiring of temporary staff increased by 47%. This increase in employees in new assignments also increased the need to provide training to staff.

A task analysis of a management position at the director level clarifying the skills and knowledge necessary for competent performance of the job has been done

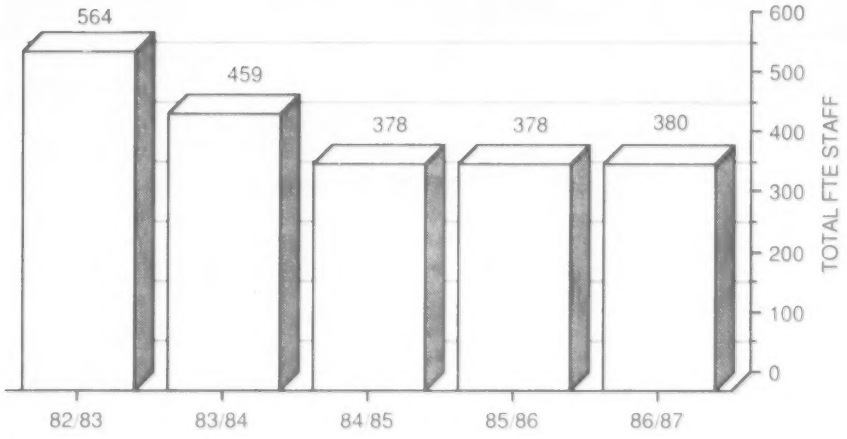
to assist managers in performance planning and review and in identifying relevant training needs. Workshops were provided on the employee performance planning and review process and also in recruitment and staffing procedures. Employees participating in training or career development courses totalled 314.

Relative to the government's commitment to improving representation of women in management within the public service, the percentage of women in management in the Ministry increased from 10% in 1984/85 to 22% in 1985/86 but dropped to 18% in 1986/87.

In the second year of the implementation of the new Management Job Evaluation Plan all management job descriptions were updated and reviewed. Also reviewed were 74 bargaining unit positions.

To meet objective 3, Support Services continues to provide on-going services in the areas of space allocation, records management, equipment maintenance, telecommunications and postal facilities, vehicles management, security and health and safety issues.

Figure 3.1
Ministry Full-Time Equivalent (FTE) Staffing Summary (Budget)
(Fiscal Years 1982/83 - 1986/87)



Source: Personnel Services

OBJECTIVES RELATED TO OFFICE AUTOMATION

4. To provide for effective selection, implementation and use of office automation at all levels of the Ministry; to increase productivity and facilitate the flow of information and communication exchanges, and to support office automation systems.

After an extensive tendering process, NBI Canada Ltd was selected to provide the

Ministry with additional word processing equipment. This new equipment will allow the Ministry to provide better integration with our existing personal computers. The system also requires less training time and provides a better looking product.

After last year's successful operation of the new computer system which processes the Grade 12 Provincial Exams, Ministry staff were able to refine the system to allow increased functionality and a reduction in operating costs. Additional refinements are already in the planning stage.

The marks from the Grade 12 Exam system are also part of a larger initiative within the Ministry to provide evaluative data about the province's school system. Data from various parts of the Ministry are being collated with data submitted by school districts to provide feedback to district administrative staff and teachers about the performance of the school system in their district and the Province as a whole. Systems Services Branch technical staff are working with Schools Department staff to expand this project to include all schools in the province.

Ministry management were given access to two electronic mail systems. One is used for internal use within the government. Utilizing the same terminal, access can also be gained to an electronic mail system which is used by most school districts in the province.

Other improvements include the purchase of a personnel management system from a B.C. software development company. This new system allows for more convenient access of personnel data and better control of Ministry FTE (staffing) counts. It also meets the requirements established by the Government Personnel Services Division for decentralization of the personnel function.

OBJECTIVES RELATED TO INFORMATION AND COMMUNICATION

5. To improve the timeliness, consistency and effectiveness of information and communications within and outside the Ministry.

The strong public interest in general and specific educational programs and initiatives continued in 1985/86. There was a steady stream of public enquiries from within the Province and from all parts of the world. The Ministry continued to respond to approximately 5,000 requests from the public for information by direct replies or by issuing standard publications such as:

- ***Public Schools in British Columbia;***
- the ***Independent Schools*** booklet;
- the ***Plus 10 Handbook For Academic and Career Planning.***

In May 1986, a Communications Plan was established for fiscal year 1986/87, outlining specific programs for improving internal and external ministry communications. The plan included: internal and external information audits; internal and external newsletters; development of an employee communication guide and feedback mechanisms; publication of a schools information booklet and ministry fact sheet; ongoing media liaison including distribution of news and feature releases publicizing newsworthy events; and timely production of the annual report.

Some progress was made towards achieving these objectives. The internal information audit was completed and an internal newsletter with a mechanism for

employee feedback was started. The annual report was published in a more timely fashion than in previous years and a program of feature releases publicizing positive developments in education was initiated. In April, the first issue of What's New in Education, a twice-a-year newsletter to the public and educators about positive developments in education, was published.

Most of the attention and resources of the Information Office during the period, however, were directed to communication with the media and public on emerging issues such as child abuse prevention, family life education, school finance and taxation, French language programming, the Royal Commission on Education, textbook funding and new provincial curricula.

In addition, a major communication effort with teachers and others in the education system surrounded the introduction of the *Teaching Profession Act* in April 1987 and continued through to the end of the school year. As a result, some projects that were planned for 1986/87 had to be cancelled or deferred to the 1987/88 school year.

6. To provide comprehensive library services to support the research, planning and general information needs of the Ministry.

The ministry library provides research services to ministry staff primarily and to members of the professional community and the public on an appointment basis.

The collection is made up of current journals and newspapers, reference works and books on topical issues in education.

Increasingly the library has adopted the policy of automating its services as much as possible to provide the most cost-effective use of resources and staff time. Most reference work is now performed electronically, using large Canadian and American data bases in all subject files and the inter-library loan services of the National Library and the Canadian universities. These computerized services have been found to be the most effective way of providing staff with relevant information within a reasonable time span.

During 1987, the Library purchased the American education database, ERIC, in compact disc format and is exploring the use of this technology in other areas of its research operations.

OBJECTIVES RELATED TO GOVERNANCE

7. To provide a legal and policy framework and process to support the governance of the educational system.

8. To ensure that legislative and policy support services are available to support the Ministry's goals and objectives.

9. To ensure Ministry and school district compliance with statutory obligations.

The four provincial statutes which currently govern the operation of the kindergarten to grade 12 educational system are set out in Table 1.1 in the Introduction to the

Annual Report (p. 11), along with the other statutes which are of importance to the Ministry in its operations and dealings with third parties.

During the year (July 1, 1986 to June 30, 1987) the Ministry experienced changes in legislation which had a direct or indirect impact on its operation and the operations of field agencies. These, in order of their coming into effect, included:

a) effective July 4, 1986, the *Commercial Arbitration Act, 1986* (Bill 22) repealed the *Arbitration Act* and provided in its place a simpler and more certain process to encourage people to resolve their commercial disputes through arbitration. This Act incorporated many of the recommendations of the 1982 Law Reform Commission and amended the *School Act* in s.138(2), 173(3) and 7(14) of the Schedule to the *School Act* by removing references to the *Arbitration Act* and replacing them with references to the *Commercial Arbitration Act*.

b) effective July 9, 1986 the composition of the Board of Examiners was amended.

c) effective July 10, 1986, s.19 of the *Education (Interim) Finance Act* was amended by The *Miscellaneous Statutes Amendment Act (No.2), 1986* (Bill 36) to remove the time limits on adjustments of amounts of net taxable values of non-residential land and improvements when taxes are prorated under s. 409(6) of the *Municipal Act*.

d) effective July 10, 1986, the *Miscellaneous Statutes Amendment Act (No.1), 1986* (Bill 28) amended s. 3 of the *School Support (Independent) Act* by permitting the Inspector of Independent Schools to suspend or revoke, for cause, the certificatio of a teacher on the recommendation of an independent schools teacher certification committee. Section 12(2) of the Act was also amended permitting an appeal of the teacher to the Minister in the event of a teacher's certificate being suspended or revoked.

e) effective August 1, 1986, B.C. Reg. 183/86 brought s.16(c) of the *Miscellaneous Statutes Amendment Act (No.2), 1986* into force. This section amended s. 20 of the *Education (Interim) Finance Act* by adding s. 20(7) providing that after 1986, adjustments in taxes have to be taken into account in determining the amount municipalities may deduct for collecting taxes.

f) effective August 1, 1986, the Prescribed Materials Regulation was amended via B.C. Reg. 185/86 by substituting new schedules 1-4 reflecting numerous changes in the guides, texts and materials that are used in the public schools.

g) effective September 1, 1986 the *Correspondence Education Regulation* was amended by B.C. Reg. 161/86 which increased tuition fees and brought into force an updated list of courses and textbooks.

h) effective September 19, 1986, B.C. Reg. 209/86 brought sections 100-113

of the *Charter of Rights Amendments Act, 1985* (Bill 33) into effect. These sections amended the Vancouver Charter prohibiting British subjects who are non-Canadian citizens from voting or running for office as school trustee, alderman or mayor.

i) effective December 4, 1986, OIC 2162/86 ordered that, among others, ministers of the Crown or ministry employees (or officers) may, on request, have youth court records, police records, and government and private records pursuant to s. 40-43 of the Federal *Young Offenders Act* made available to them.

j) effective January 1, 1987, a consequential amendment was made to s.25(2) of the *Education (Interim) Finance Act* as a result of the *Assessment Amendment Act, 1986* which clarified the definitions of "land" and "improvements".

k) effective January 23, 1987, B.C. Reg. 19/87 amended s. 33 of the School Act Regulation by permitting each school trustee to receive up to a maximum of $5,000 per annum (was $4,000). This change resulted in the chairman's annual indemnity increasing to a maximum of $7,500 (was $6,000) and the vice chairman's to $6,250 (was $5,000).

l) effective March 14, 1987, OIC 446/87 ordered that Barry Martin Sullivan, Q.C. be appointed as a commissioner under the *Inquiry Act* to inquire into and, on or before April 1, 1988, to report on education in the Province from kindergarten through grade 12.

m) effective March 14, 1987, OIC 432/87 amended OIC 2162/86 by permitting a superintendent of schools to make requests for youth court records, policy records, and government and private records pursuant to s. 40-43 of the Federal *Young Offenders Act*.

n) effective March 16, 1987, the Prescribed Materials Regulation was amended by B. C. Reg. 75/87 to change Economics 11 to Economics 12,Consumer Education 11 to Consumer Education 12 and Writing 12 split into two courses (Writing 12 and Journalism 12).

o) on April 22, 1987 the grant calculation percentages for the *School Support (Independent) Act* were changed by B.C. Reg. 117/87 effective in respect of the school year commencing July 1, 1987 and subsequent school years. The group 1 classification changed from 9% to 10% and the group 2 classification changed from 30% to 35%. These percentages apply to the public school operating costs for that school year, in the school district in which the independent school is located.

p) on May 1, 1987, B.C. Reg. 122/87 brought sections 88-92 of the *Charter of Rights Amendments Act, 1985* (Bill 33) into effect. These sections amended the *Municipal Act* prohibiting British Subjects who are non-

Canadian citizens from voting or running for office as school trustee.

q) on May 8, 1987, a new *Financial Information Act* came into force requiring school boards to prepare a statement of financial information within 6 months after the end of the fiscal year (June 30). This statement must be kept in the board office and a copy must be available for inspection by any person. In addition the statement must be provided on request to the public on payment of a $5 fee.

r) on May 26, 1987, the *Teaching Profession Act* (Bill 20) was given Royal Assent. This Bill creates a College of Teachers and alters the bargaining relationship between school boards and teachers. Membership in the College of Teachers is open to all persons presently holding valid and subsisting Provincial Certificates of Qualification. The College is governed by a 20 person Council comprised of 15 persons elected by the members and 5 persons appointed by the Lieutenant Governor in Council and the Minister. The College is charged with the certification of teachers in the Province and governs matters dealing with competence, professional development and discipline. Bill 20 also varies the historic bargaining relationship between teachers and school boards by providing full collective bargaining rights on most matters concerning the employment relationship. The Bill clarifies the management role of administrative officers and, subject to limited exceptions, makes membership in the College and a certificate of qualification issued by the College a prerequisite to teaching in public schools.

On June 22, 1987, B.C. Reg. 168/87 brought into force those sections of the *Teaching Profession Act* that allowed for the establishment of the first election commission which arranges for the first election of members to the Council of the College of Teachers.

s) on June 25, 1987, Bill 45 *Local Election Reform Act, 1987* was given first reading. This Bill provides for the election of mayors, aldermen and school trustees at 3 year intervals. The 1987 elections will be for 3 year terms,1988 elections will be for 2 year terms. All elections will be held on the third Saturday of November starting in 1987.

t) on June 26, 1987, the *Industrial Relations Reform Act, 1987* (Bill 19) was given Royal Assent This Act (which at June 30, 1987 was still to have been brought into force by regulation) establishes the Industrial Relations Council to replace the Labour Relations Board. Also, in conjunction with the *Teaching Profession Act, 1987* (Bill 20) this Act permits teachers within school districts to vote to organize as a union, to seek certification and to bargain the terms and conditions of their employment with strike/lock out actions permitted along with a number of possible dispute resolution mechanisms available.

u) on June 26, 1987, Bill 22 the *Expropriation Act* was given Royal Assent. The purpose of the Act is to provide a uniform code for expropriations in

the Province. This Bill repeals sections 171-176 of the *School Act* and permits school boards to continue to expropriate under s. 166(1)(c). The decision to expropriate and the approval of that decision will continue to lie with the school board. The Act had not yet been brought into force as of June 30, 1987.

v) on June 26, 1987, the *Pension (Teachers) Amendment Act, 1987* (Bill 24) was given Royal Assent and was deemed to have come into force as of April 1, 1987. This Act permits public school teachers to take early retirement between 55 and 59 years of age during the period from April 1, 1987 to June 30, 1987, without suffering the reduction in their superannuation allowance that is provided for in the regular early retirement provisions.

w) on June 26, 1987, the *School Support (Independent) Amendment Act, 1987* (Bill 33) was given Royal Assent. This Act clarifies the definition of "authority"; changes the definition of "certified" consequential to the *Teaching Profession Act*; repeals the 10 year "certified" provision; expands the definition of "qualifying pupil" to include diplomatic corps children; reduces the grant eligibility time from 3 years to 1 year and also requires that 40% of the preceeding year's pupils must continue when one authority takes over from another; requires that the provincial learning assessment program and grade 12 examinations be a condition for Group 2 eligibility; alters the grant payment schedule so that most of the grant is paid in the current school year; provides for voluntary school accreditation for non-funded schools; and grants certification to teachers having taught full time for 10 or more years in a B.C. school. All provisions of this Act except the *Teaching Profession Act* consequential amendment, were brought into force by B.C. Reg. 211/87 on July 7, 1987.

x) on June 30, 1987, Bill 42 the *Miscellaneous Statutes Amendment Act (No.2), 1987* was given first reading. This Bill amends a number of statutes as follows:

i) *Financial Information Act*
- gives the Lieutenant Governor in Council broader authority to specify the information which shall be disclosed by school boards and reduces the rigidity and gives flexibility to certain of the reporting requirements.
- gives school boards, by regulation, time to just their systems before having to make their first report under the Act.

ii) *Home Owner Grant Act*
- permits the home owner grant to be paid to owners of recently subdivided parcels.

iii) *Pension (Teachers) Act*
- provides that this Act applies to administration officers.

- provides for employees of the College of Teachers to be eligible for coverage under the Act.
- allows for payments from salary indemnity funds, established by groups in addition to the B.C.T.F., to be eligible for pensionable service.
- provides for restructuring the Teachers' Pensions Board.

In addition, the Legislative Services Branch was involved in the following projects and activities:

a) considerable legal and policy research was undertaken in support of Ministry of Education and Provincial Government perspectives on litigation-in-progress concerning issues such as teacher-school board collective bargaining, teacher welfare and pupil safety. This research pertained to various levels of the judicial process and involved continued investigation into the implications of the *Canadian Charter of Rights and Freedoms* on the education system. It also necessitated regular interaction with professional staff in the ministries of the Attorney General, Labour and Consumer Services and the Provincial Secretary and Government Services.

b) comparative research was undertaken for the Minister in conjunction with other units of the Education Ministry on the status of federal-provincial agreements in education. This project involved a review of the provisions currently in place between Canada and British Columbia with a study of changing circumstances in respect of areas such as Indian education, the education of children of Department of National Defence personnel and the job strategies programs offered through local school districts. Officials in other provincial ministries of education were contacted for information on the experiences of jurisdictions other than British Columbia.

c) a comprehensive brief on the status of teacher-school board collective bargaining in B.C. was compiled and submitted to the labour Legislation Review undertaken by the Minister of Labour. As in previous years, the Legislative Services Branch assisted the Minister of Education in carrying out statutory responsibilities concerning the establishment of teacher-school board collective bargaining zones, the appointment of conciliators and arbitrators and the general monitoring of the bargaining process.

d) as a service to program-oriented units within the Ministry, the Branch participated in projects designed to improve standards of Ministry coordination and communication with school districts. This support service involved areas such as school accreditation, special education policy, facilities and transportation and science education. Additionally, at the request of the Commissioner, the Branch facilitated certain initial administrative undertakings necessary on behalf of the Royal Commission on Education in British Columbia.

e) ongoing liaison was maintained with other Ministries of Education in Canada. This liaison involved considerable correspondence and resulted in timely information concerning legislative and program-related initiatives undertaken in

these other jurisdictions. In turn, the Branch shared information concerning initiatives undertaken in B.C. with other provinces upon their request.

f) historical and comparative research was undertaken to identify background factors related to new legislation concerning the College of Teachers, early retirement incentive plans for teachers and the role of school principals as part of school district management. These research activities were carried out in conjunction with other units of the Ministry of Education and personnel from other ministries of the Provincial Government.

g) a database reference service of judicial decisions was updated and fine tuned to allow for searches to be carried out using keywords. This reference service is considered a prototype of a more major database that will include other reference services such as statutes and legal opinions.

h) an analysis of the relevance and authority of the various sections of the School Act Regulation was conducted with the Division of Field Services in light of the introduction of the *Teaching Profession Act*. This analysis has resulted in a series of recommendations as to whether the existing sections should be maintained, amended or repealed.

i) a revised process for preparing an order in council was developed and implemented to ensure that Treasury Board Staff and Cabinet have essential information concerning each order.

OBJECTIVES RELATED TO FINANCIAL ACCOUNTABILITY AND ADMINISTRATIVE SYSTEMS

10. To assist the Ministry in presenting to government and its agencies, clear, concise and credible Ministry financial proposals by serving as the central liaison agency for the Ministry with the financial agencies of governments, and by providing quality assurance in communications between the Ministry's departments and government agencies.

11. To ensure, through processes of education, performance and cost-effectiveness audits, that funds are being expended as budgetted within a proper process of financial accountability for the use of public funds both within the Ministry and, in cooperation with the Schools Department, in the field agencies.

12. To ensure that the Ministry budget process for operating and capital purposes develops information of high quality and clarity for decisions at all levels within the Ministry and government, and that the annual operating and capital budgets reflect, to the maximum degree possible, the priorities of the field agencies, the various departments of the Ministry and the government.

An ongoing liaison is maintained with the various branches of the Ministry of Finance including the Comptroller General's office, Treasury Board Staff and other government agencies regarding matters of finance and financial administration. The development, monitoring and ongoing analysis of the Ministry's annual budget is critically important to guide the distribution of resources which will lead to the optimum achievement of the Ministry's goals.

Table 3.1
Sources & Application of Funds - 1986/87
($ Millions)

Ministry of Education 1986/87 Estimates		Other Sources of Funding		Major Funded Agency	
Public School Contributions				Public Schools (1986/87)	
Contributions		Residential Taxation	506.9	Operating	1,765.0
Operating	616.2	less Home Owner Grant	(280.6)	Debt Servicing	185.4
Debt Servicing	110.6	Net Residential Taxation	226.3	Total Gross Budgets	1,950.4
Insurance & Misc. Programs	4.9	Surplus/Deficit Carry Forward & Adjustments for Provincial Fiscal Year	(20.4)*	Insurance and Misc. Programs	4.9
Total Direct Contributions	731.7	Funds For Excellence	34.6	Total	1,955.3
Non-Residential Taxation	491.7	Other Revenue	91.8**		
Home Owner Grants	280.6	Total	332.3		
Teachers' Pension Fund	104.2				
Textbooks (CAP)	14.9				
Total Contributions	1,623.0				
Independent School Contributions	28.3				
Ministry Operating Funds	25.8				
Total Gross 1986/87 Estimates	1,677.1				
less Non-Residential Tax Recovery	(491.7)				
Total 1986/87 Estimates	1,185.4				

* Includes a calendarization adjustment ($25.4) to reflect lower Non-Residential School Property Taxes in the 1986/87 school year.

** Other Revenue Sources:

Federal Government	53.1
Provincial Government	20.1
Locally Raised	18.7

Provincial funding for Independent Schools is based on a percentage of the total number of pupils and operating costs in the Public School system. The balance of funds is raised through tuition fees and other revenue.

NOTE: During this reporting period the fiscal years for the agencies are:

Ministry of Education	April '86 - March '87
Public Schools	July '86 - June '87

Table 3.2

Federal and Provincial Agreements
Administered by the Ministry of Education

Agreement	1985/86 Estimates	1986/87 Estimates
Education of Status Indians	$28,460,000	$30,662,000
Official Languages in Education (Bilingualism)	6,126,000	7,100,000
Education of Service (DND) Children	2,600,000	2,368,000
TOTAL	$37,186,000	$40,130,000

OBJECTIVES RELATED TO TEXTBOOKS

13. To administer the purchase and delivery of all textbooks and print learning resources for public and independent schools, correspondence and adult education students in B.C.

The Publication Services Branch of the Ministry provides textbooks and other print learning materials to approximately 540,000 students in the province. The inventory of titles includes 1,600 prescribed and authorized English, 350 French, and 150 post-secondary and vocational titles, plus 140 correspondence course papers. The Ministry is the third largest purchaser of educational books in Canada. However, British Columbia is the largest Canadian producer of custom-made textbooks to match provincial curriculum.

Textbooks are purchased in the most economical quantities based on a review of price, specifications and supply. Where possible, efforts are made to use B.C. publishing companies and textbook manufacturers in order to support the Province's printing, binding and paper industries. The Branch met its primary goals of providing educational materials within budget, sufficient to meet all schools' reasonable demands, and delivery of 95% of all new and reorder materials before school opening.

The value of materials (textbooks, curriculum guides, audio/video tapes, vocational and correspondence) shipped during 1986/87 was approximately $17 million. $6.125 million was included in this textbook budget from the Excellence In Education Fund, which allowed the purchase of textbooks for the following new programs: Social Studies 10, Biology 11 and 12, Computer Science 12, Fine Arts 1-7, Science and Technology 11, Family Management 11, 12 and atlases for Grades 8 through 11. In addition, new programs in Social Studies 6 and 7, Science 9 and Physical Education were funded from the Branch base budget. There was a positive feedback from secondary schools about the large variety and excellent quality of new programs offered this year. Table 3.3 shows the dollar value of materials distributed since 1982/83.

Table 3.3

Value of Materials Distributed Annually by Publications Services (1982/83 - 1986/87)

Year	Value of Materials ($ Millions)
1982/83	13.2
1983/84	11.3
1984/85	13.1
1985/86	12.0
1986/87	17.4

The Excellence in Education Fund, if maintained, will allow a six year curriculum revision cycle of major core programs, which will provide the best contemporary learning materials to students in B.C.

This year, textbook rebinding was maintained. School districts were asked to spend a minimum of four per cent of the value of their orders on repairing existing textbooks, rather than buying replacements. A re-bound textbook performs like a new one at one quarter of the cost. Approximately 130,000 textbooks were repaired at a saving of more than $1.7 million.

Publication Services manages the Credit Allocation Plan. This is an order control function where districts are provided annually with credits equal to the textbook budget which are exchanged for textbooks. The total allocation has been claimed each year since the inception of the plan, which indicates that school districts have implemented all of the new programs when they become available.

The School Library Book Purchase Plan provides district libraries with a selection of the best B.C. published trade books. In 1986/87, 44 titles were offered to school libraries at a total cost of about $140,000.

OBJECTIVES RELATED TO NON-PRINT LEARNING RESOURCES

14. To provide non-print learning resources to all schools and many post-secondary institutions in the Province.

The Provincial Educational Media Centre (PEMC) maintains systems for the identification, evaluation, development and acquisition of non-print learning resources in support of the K-12 and post-secondary curriculum. As well, the branch maintains distribution systems for the timely delivery of these resources to schools and post-secondary institutions.

In 1986/87, PEMC objectives were to identify, evaluate, acquire and distribute media resources to support:

1. Biology 11/12
2. Chemistry 11/12
3. Science and Technology 11
4. Elementary Cadre and Immersion
5. Post-secondary Technical/Vocational
6. Telecourses
7. Small Secondary Schools Project
8. Elementary Fine Arts

As a result of this work:

a) media resources were acquired for the chemistry and biology curriculae. Titles were listed in the curriculum guides;

b) 51 titles in the TRAC programs were acquired and advertised; PEMC licenced five telecourses for video duplication and for television broadcast;

c) work was begun on developing a Physics 12 course for use in small secondary schools that made use of video and microcomputer software;

d) media resources in support of the Elementary Fine Arts curriculum and for use in the elementary Cadre and Immersion programs were evaluated and acquired.

As well, PEMC continued to co-ordinate the evaluation of new microcomputer software and published and distributed 10 issues of ***Evaluations: Microware.*** PEMC staff served on the Provincial Advisory Committee on Computers to help put together recommendations for computer use in British Columbia schools.

In 1986/87, PEMC's distribution services were expanded to meet increasing demand for video and microcomputer software. Over 4,000 video programs for the Science and Technology 11 curriculum were duplicated and added to the teaching modules for the course. A number of telecourses were "stacked" at long-play speed on cassettes for the Open Learning Institute and Correspondence Education Branch for loan to distant learners and playback on home video machines. In this way, a typical 26-program telecourse can be stacked on three tapes for easy mailing. The use of tapes allows home learners to begin courses an any time and to progress at their own speed.

Table 3.4
PEMC Distribution
(1982/83 - 1986/87)

Year	Films Loaned	Video Sales	Micro Computer Programs Sold	Audio Tapes Sold
1982/83	40,773	23,778	1,209	10,818
1983/84	38,749	25,287	2,664	6,166
1984/85	34,854	25,352	2,315	9,410
1985/86	27,754	26,137	3,492	11,587
1986/87	29,564	40,103	6,410	16,190

OBJECTIVES RELATED TO CORRESPONDENCE AND ADULT EDUCATION

15. To provide distance learning opportunities (K-12) to school-age students and adults.

In fulfilling its mandate, the Correspondence Education Branch of the Ministry of Education enrols:

(1) school-age students in a full grade program only with the approval of the local superintendent of schools. Full grade students are those who:
   - are geographically isolated;
   - have prolonged illnesses;
   - are living temporarily outside the province;
   - are in special circumstances as approved by the superintendent;

(2) students who are attending secondary school (with the approval of the school principal) in additional courses, or courses not offered by the school;

(3) students who have left school;

(4) adults.

Regional offices in Fort St. John (secondary) and Dawson Creek (elementary) enrol students from the four northern school districts (Peace River South, Peace River North, Fort Nelson and Stikine).

The Correspondence Branch provides course papers:

(1) as reference material to teachers;

(2) under the Small Schools Project.

In the 1986/87 school year, the Correspondence Program offered 36 elementary courses, from kindergarten to grade 7, and 105 secondary courses from Grades 8 to 12.

During the 1986/87 school year, elementary correspondence enrolment was 1,371. On average, 568 of these pupils were active at any given time. Average secondary course enrolment during the same period was 19,575.

Table 3.5 shows the enrolment status of a sample elementary correspondence population. Table 3.6 shows the equivalent for a sample secondary population.

Because the Fort St. John regional office, which was established in September 1984, has had greater success in meeting the needs of students than the centralized office in Victoria, the Branch is investigating further regionalization. A second regional office to service the Cariboo-Chilcotin, Quesnel, Burns Lake, Nechako, and Prince George will open in Prince George in September, 1987.

Table 3.5

Elementary Correspondence Student Enrolment Status (Using August 1987 Status of Students Who Enrolled During September 1986 as an Example)

	Number	% Of Enrolment
Completed	43	32.6
In Progress	54	40.9
Withdrew to:		
return to school	27	20.5
move	2	1.5
other (unknown)	6	4.5
TOTAL SAMPLE	132	100.0

Table 3.6

Secondary Correspondence Student Enrolment Status (Using August 1987 Status of Students Who Enrolled During September 1986 as an Example)

	Number	% Of Enrolment
Total Course Enrolment	2577	100.0
Number actually starting	1836	71.2
Of those starting	1836	100.0
Number Completed	409	22.3
Number in Progress	488	26.6
Number Withdrew	939	51.1

During the 1986/87 school year, the Ministry was involved in the development of 12 new courses.

Adult Education

In the 1986/87 school year 21 school districts with support from the Ministry of Education offered a range of adult education programs. This included School Districts #3 (Kimberley) and #62 (Sooke) who, in the previous year, had been granted approval to offer adult continuing education programs.

In accordance with community wishes and resources, courses offered were designed to provide knowledge, skills, and understandings to meet personal, occupational or community needs. As such, demands for courses were locally generated,

allowing adults in each district both access as well as an active role in their ongoing educational pursuits. During the reporting period part-time adult students accounted for 143,807 enrolments in all program categories.

The diverse course offerings, as determined by local demands, have been organized into six main areas of study in accordance with Ministry guidelines. These categories include high school courses under the adult secondary school completion program, courses designed to focus on the needs of participants to acquire the basic skills of literacy and numeracy, English language training programs, courses to prepare or retrain part-time adult students for the labour market, programs pertaining to applied personal skills, and community education programs which benefit society as a whole. Table 3.7 shows enrolment counts by school district for the 1986/87 school year as they apply to each of the program categories.

Table 3.7

Course Registrations in Adult Education Programmes Offered By B.C. School Districts by Programme Type Reporting Period 1986/87 Year End

	High School Completion	Academic Upgrading	English Language Training	Vocational/ Prof. Develop	General Interest	Community Interest	District Totals
#03 Kimberley	-	-	-	209	701	162	-
#11 Trail	119	0	0	556	903	1140	2718
#28 Quesnel	169	131	37	563	1225	235	2360
#35 Langley	368	513	171	5198	3341	1089	10680
#36 Surrey	1246	840	584	2805	4445	403	10323
#37 Delta	213	359	148	1253	3480	2160	7613
#38 Richmond	308	97	583	2365	3881	1628	8862
#39 Vancouver	4758	1499	3891	9149	21008	4604	44909
#40 New Westminster	397	174	122	1790	2989	695	6167
#41 Burnaby	504	1000	1355	2325	4005	3144	12333
#42 Maple Ridge-Pitt Meadows	361	166	0	418	567	320	1832
#43 Coquitlam	529	362	287	2546	4878	2532	11134
#44 N&W Vancouver	731	663	1075	3972	6894	1306	14641
#46 Sunshine Coast	0	12	47	236	845	570	1710
#48 Howe Sound	6	38	53	470	1296	436	2299
#50 Queen Charlotte	0	0	0	11	412	80	503
#57 Prince George	73	35	141	542	618	70	1479
#62 Sooke	37	135	3	390	527	173	1265
#64 Gulf Islands	0	0	0	149	561	508	1218
#66 Lake Cowichan	15	41	4	138	488	652	1338
#72 Campbell River	88	0	9	44	243	48	423
TOTAL	9922	6065	8501	35129	63307	21955	143807

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